

small air forces observer

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January 1993

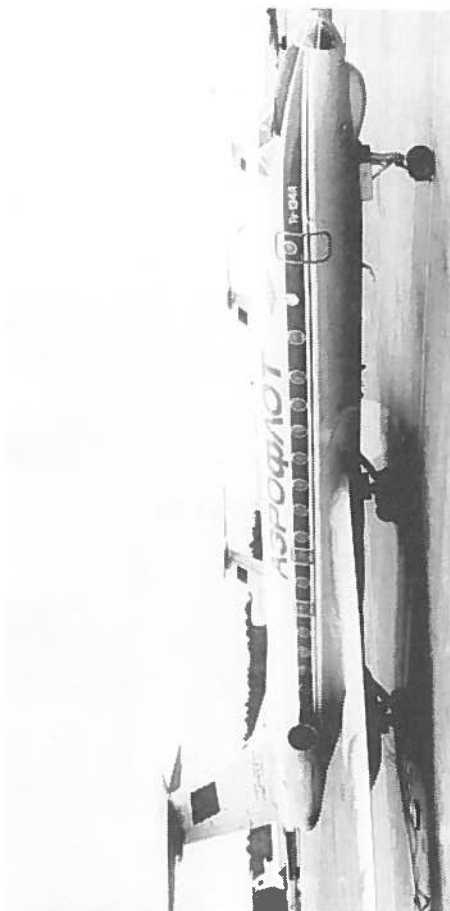
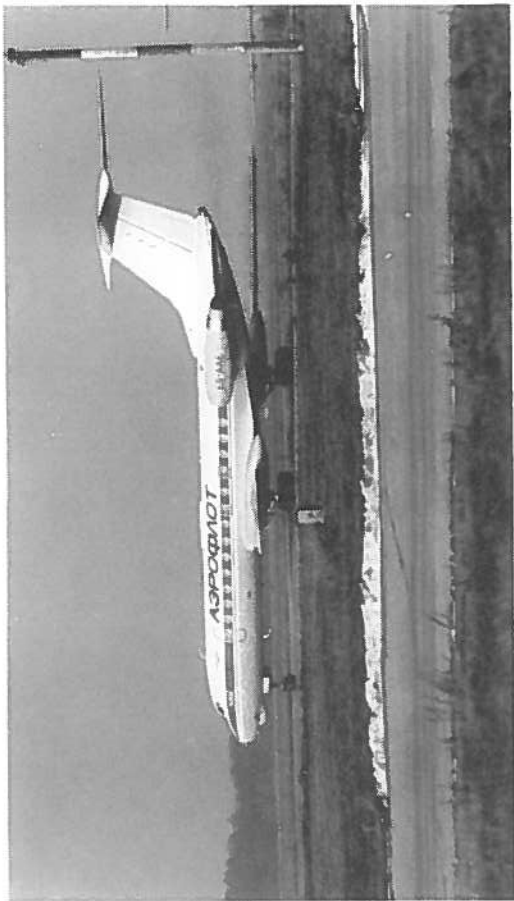
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SQUADRONS OF THE ISRAELI AIR FORCE 1942-1992: PART 2 - SQNS 105-110
AIRLINES OF THE FORMER USSR: PART 1 - THE BALTIC REPUBLICS
CROATIAN AIR FORCE 1941-1945: PART 1 - FIGHTER AIRCRAFT
SABRE DOGS IN THE YUGOSLAV AIR FORCE
SOVIET AIR ACES OF THE KOREAN WAR
ECUADORIAN ALOUETTE III & T-41
SMALL AIR FORCE PEMBROKES
SPANISH NiD-52
MIG MODELING

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SMALL AIR FORCES OBSERVER

The Newsletter of the Small Air Forces Clearing House

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SAFO EDITORIAL POLICY: The purpose of the SAFCH is to "promote interest in the history and modeling of the aircraft of the smaller countries". In support of this goal, the SAFCH encourages international cooperation in researching aviation history, both military and civil, from all periods of time, and for all the smaller countries. In return for this support, members are asked to submit occasional progress reports for publication in the SAFO. While the final results should appear in the most prestigious publication possible, it is requested that the SAFCH be mentioned (with address) in the article and that SAFO be afforded the opportunity of reprinting the material. Article published in SAFO can be reprinted provided permission of the author is obtained and the SAFO is identified in the reprint.

SUBSCRIPTION RATE: Subscription to the current volume of the SAFO is US \$9.00 for 4 issues per year in the USA and \$10.00 elsewhere via surface mail. For the cost of air mail delivery, contact the editorial office, or send \$20.00 and the small excess will be credited to your account. Payment should be made in cash, by International Money Order, or by a check drawn on a bank with a subsidiary in the US. (There's a \$25 charge to cash a check from a bank without a US subsidiary.) New subscriptions begin with all issues of the volume current at the time payment is received; if you desire otherwise, please specify which issues are desired. Send remittance to Jim Sanders, 27965 Berwick Dr., Carmel, CA 93923 USA. You can also have your bank transfer money directly to my bank: Coast Federal, Los Angeles, 3220-7021-3; credit to James V. Sanders Account #03105350 at the Carmel Valley Branch, 27845 Berwick Dr., Carmel, CA 93923. Please add \$5.00 to cover the service charge that my bank will charge me.

BACK ISSUES: Either back issues or Xerox copies of out-of-print issues are available for all issues of the SAFO published. For a list of all issues and their content, send two 1st class stamps (or 2 IRCs) to the editorial office.

SPONSORSHIP PROGRAM: To keep the SAFCH truly international, our Sponsorship Program allows persons who can not obtain US currency to receive the SAFO. Any SAFCH member interested in sponsoring a SAFO subscription for a person in Eastern Europe (or from other country where it is impossible or difficult to obtain US currency) should write to the editorial office for a list of persons seeking sponsors. If you would like to receive the SAFO but can not obtain US currency, a list of SAFCH members looking for someone to sponsor is also available from the editorial office.

INFORMATION FOR AUTHORS: Manuscripts may be submitted in any form; authors whose first language is not English may submit a rough translation of the text and the editorial office will put it into good English. Authors using a computer should send the manuscript on disc. Photo should be black and white prints although color prints can be used. If you want any photos returned, please mark "Return" on the back. All art work must be ready for printing. The layout should be such that when a page is reduced (if necessary) the drawing should fit into the 7.5 inch by 10 inch working area of the final page. Art work that does not fit this requirement will have to be cut and pasted to fit; no problem, but things might not look exactly as you want them to look. All work for the SAFO is voluntary and no payment can be made for published material.

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whole or in part without the written consent of the publisher and the author.

LOST MEMBERS: Anyone knowing the whereabouts of the following 'lost' SAFCH members please inform the editorial office (last known address included): Alain La Pierre, PO Box 2102 2102A, Les Delicias, Maracay, Venezuela; Michael Parr, #124 101 Tabor Blvd., Prince George, B.C. Canada; Richard Harrison, "Halcyon", RD 3, Box 3639A, Stroudsburg, PA; Ellis Estes, 5 W. Glebe Rd., Alexandria, VA.

COVER COMMENTS: "I recently received this photo of an An-2 in Lithuanian Air Force markings. The markings are the same as pre-WWII: a black and white double cross. Note the black was painted using a stencil. The markings appear on the top and bottom of the wings and on both sides of the fin. The Soviet-style number is probably light blue with white outline. The airplane is olive green overall with black antiglare panel in front of the cockpit and white striped bottom front of the engine cowlings." David Dulaitis (SAFCH #913), 417 Preston Circle, Sunny Hills, FL 32428.

[Editor's note: I've been getting lots of bits and pieces on new air force insignia for eastern Europe, the Balkans, and the former Soviet Union. I'll try to get all of this into the next issue of SAFO.]

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Required by 39 USC 3685)			
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Signature: <i>James V. Sanders</i> Editor			

AUSTRALIA

AUSTRALIAN PLASTIC MODELLERS ASSOCIATION (APMA, PO Box 51, Strathfield, NSW 2135; 4 issues sea mail A\$27; air mail A\$30). Winter 92 (28 pages) "Modelling the CAC Wirraway" 4 pages including 4 photos, sketches, and one side-view drawing. "75th Anniversary Hornet" 2 pages including 2-view drawing. "Iberian Airwar (Pt V): The Miles Hawk Major in Spain" 2 pages including modelling tips and drawings of two a/c. "Modelling the Australian Seahawk (Pt II): The Scale Plans" six pages of drawings. "Jump for Joy" 4 pages including side-view drawing of RAAF DC-2 and 2 photos of a "loud-hailer" unit mounted on a jeep. "Modelling the Junkers Ju 88B" 2 pages with side-view drawing. "Thunderbolt Miscellany" 4 pages including 10 side-view drawings, mainly of 19th FS on USS Natoma but also a French P-47D (razor-back) and a USAAF two-seater. Spring 92 (28 pages) "S-70B-2 Seahawk Colours" 4 pages including 3 photos and a page of drawings showing the colors applied to the RAN Seahawk. "Wirraway Detail Photos" 3 pages including 7 photos of details and 2 photos of 6 restored a/c. "Australasian Pumas" one page with 2 side-view drawings (Indonesia AF & civil Australian). "Goring's Nightmares" 7 pages including 3 photos and 2-page color-scheme drawings of Bf-110G-4 which was interned in Switzerland. "Avia B-135" one page with 2 side-view drawings (Bulgarian and Luftwaffe). "Yak-7 Corrections" 1/2 page with one side-view drawing. "P-47 Thunderbolt Kits" 6 pages including comparisons of readily-available kits and 3 pages of sketches of details. [Editor's note: This last article is outstanding. It set a standard for other kit "surveys" to emulate.]

NEWS AND VIEWS (IPMS NEW SOUTH WALES, PO Box 637, Broadway, NSW 2007; 4 issues A\$30.00 air mail).

9-1 (26 pages) "FW-190A-8" 10 pages including 6 side-view drawings and numerous sketches for the modeler. "armless Bostons" 2 pages including 2 side-view drawings (USAAF & RAAF). "Klemm 35" one page with 2 side-view drawings (Luftwaffe). "Aussie Kittyhawk 1a's" 4 pages including 6 side-view drawings.

AUSTRIA

OFH NACHRICHTEN (Oesterreichische Flugzug Historiker, Pfenninggeldgasse 18/2/14, A-1160, Wien).

2/92 (32 pages) "Lohner-Flugboote L.127" 10 pages including 6 photos. "Pilatus PC-7" 2 pages including 2 photos and one side-view drawing of a/c in Austrian AF service. "PZL 101 Gawron" 5 pages including 3 photos, one side-view drawing, and table of a/c in Austrian civil service. Two photos of Drakens; one Austrian, one Swedish.

BELGIUM

KIT (IPMS Belgium, Te Couwelaarlei 103 bus 21, B-1200 Deurne/Antwerp; 4 issues US \$25 in cash, International Postal Money Order for 750 BF, or American Express IMO for US \$25; add US \$5 (or 120 BF) for airmail. Please specify French or Dutch edition).

#86 Summer 92 (50 pages) "Nos Beaux Fougas" 25 pages including one color photo (camouflaged a/c), 19 b&w photos, 10 pages of 3-view drawings of color schemes, and table of histories of individual a/c (all Belgian a/c except for 3-view drawings of Irish and Katangan a/c). "Les Thunderbolt de la 9e

Air Force" 4 pages including drawings for 4 a/c (including a drawing of the pin-up art that can be reduced onto decals paper, painted, and applied to the model; an idea that others should emulate).

BRAZIL

EM ESCALA (IPMS Brazil, Rua Arquias Cordeiro, 316 S/502, CEP 20770, Meier, RJ. Subscription is \$7.00, but they prefer kits or accessories. Send to Antonio Pereira Linhares at the above address.)

3/92 (20 pages) "Brazilian Lockheed Ventura/Harpoon" 9 pages including 7 photos and a two-page drawing of the PV-1 and PV-2 [Editor's note: The art work shows the aircraft in a three-tone camouflage of "dark gull grey", "non-specular white", and "gloss insignia white", but Escala's editor adds that other sources give a camouflage of "blue colors". Seems to me that these aircraft should have been in standard USN three-tone scheme of two blues and white. Any comments?] "Kfir C-2 e TC-2 Equatorianos" 2-page reprint from SAFO.

DENMARK

NYT (IPMS Denmark, c/o Bjorn Jensen, Rosenvaegets Alle 6, 2100 Kobenhavn 0; 4 issues for 90 Dkr surface, 100 Dkr airmail).

#57 (30 pages) "Det Sovjetiske Vortesvin" 5 pages including 3 pages of 3-view drawings of Su-25 (Soviet, Czech, & Iraqi). "Supermarine Seafire" 5 pages on modeling the Seafire. Four photos of RDAF Draken in all-red color scheme.

ENGLAND

IPMS MAGAZINE (Ernie Lee, 51 Ball Road, Hillsborough, Sheffield, South Yorkshire S6 4LZ, 6 issues for £18.00 (approximately \$36.00. US subscription agent: Wise Owl Publications, 4314 West 238th St., Torrance, CA 90505; since exchange fluctuates write Joe for current rates).

5/92 (24 pages) "The SAAB 105" 8 pages including one photo and 6 side-view drawings and 4 3-view drawings of Swedish and Austrian machines. "The RAF's Luck Star - The Lockheed Ventura" 2 pages including 4 photos. "Almost the Last of Many" 2 pages on modeling the Israeli S-199 including 3 side-view drawings.

PLASTIC KIT CONSTRUCTOR (PAMAG (Publications) Ltd., 3 Lowfield Court, Old Forge Business Park, Sark Road, Heeley, Sheffield, S2 4HG; 4 issues £ 17.00 approximately \$34.00. In USA/Canada order from J.J. Daileda, 4314 West 238th St., Torrance, CA 90505; since exchange fluctuates write Joe for current rates).

#32 (28 pages) Nothing of direct small-air-force interest, but dozens of kit reviews (Aeroclub's 1/72 Fairey Firefly IIM with Belgian markings) and announcement of Blue Rider's new decals for WWI Ukrainian AF, WWII Croatian & Slovak AF, Albanian AF (1970s), and modern Slovene AF.

FINLAND

MALLARI (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues \$20.00, no check accepted due to the high redemption costs).

4/92 (16 pages) "Brewster Model 239" 7 pages of Finnish Buffalo including 7 photos and 7 side-view drawings. "Saab 17a" 2 pages with 6 photos of a/c in Finnish markings.

5/92 (20 pages) "Douglas DC-2, Hanssin-Jukka" 9

pages including 10 photos and 4 side-view drawings.

FRANCE

LA VITRINE DU MAQUETTISTE (IPMS France, PB 149, 75961 Paris, Cedex 20, PB 149, 75961 Paris Cedex 20; 4 issues 150 FF).

#43 (44 pages) "MiG-3" 10 pages 1/72-scale 6-view drawings and 8 side-view drawings. "Grumman F7F-3N Tigercat Droopsnoot" 7 pages including 1/72-scale 3-view drawings and 18 photos of details of the real aircraft.

GERMANY

MITTEILUNGEN (IPMS Germany, Bergengruenstrass 5-7, D-1000 Berlin 38; 12 issues DM 60.00 Europe, DM 65.00 USA, DM 70.00 Japan, DM 75.00 Australia).

6/92 (32 pages) "Wo Bleiby die Heinkel He 45?" 2 pages including 5 photos. "International Airshow" 3 pages with 10 photos Czech L-29, Romanian IAR-99 (3), and Hungarian Mi-8, Su-22, Mi-24, MiG-21 (2), & MiG-23.

7/92 (32 pages) "Deutsche Flugzeuge in der UdSSR 1939-45" 6 pages 13 photos.

8/92 (32 pages) "Tag der offenen Tur in Berlin - Tempelhof 1992" 3 pages with 7 photos of Luftwaffe a/c (Mi-14, Mi-8, Mi-6, L-410, Canberra, & Bell UH-1). "Rumanische Bf-109" 3 pages with 2-page, 3-view drawings of a Romanian Bf-109E carrying roundels; a very nice looking a/c.

ITALY

ALI ANTICHE (Gruppo Amici Velivoli Storici - GAVS, Largo Lucio Apuleio 11, 00136 Roma. 30.000 lire.)

#26 (24 pages) "Restauro il Bleriot XI-2" 4 pages with 5 photos during restoration and 2 photos of finished product. "Come si Inventava un Duello" 2 pages "dispels the long standing myth of a dogfight between the US mercenary Capt. Derek Dickinson and Lt Bruno Mussolini" including 3 photos. "Speciale Caravelle" 4 pages including 7 photos and table of Italian Caravelle. Photos: Italian Bleriot in Libya and museum Nardi FN.305 repainted in Royal Romanian AF markings.

IL NOTIZIARIO (IPMS Italy, CP 182, 41100 Modena Ferrovia; one year 50,000 Italian Lira in Europe or US \$50.00 overseas).

2/92 (32 pages) "Albatros D-V" 10 pages including 12 photos of aircraft & its details and 7 photos of the model, 1/72-scale drawings including corrections to be made to the wing of the Airfix kit, and and color schemes for two German aircraft. "AMI Starfighters" 5 pages of drawings of 4 commemorative aircraft and one experimental camouflage scheme; this is the first time I've noticed that the Italian national insignia now has a very narrow white ring (low vis markings?).

3/4 92 (32 pages) "Gli Aerei della Marina TAV-8B" 6 pages including 3 photos and 5 pages of drawings of Italian Harrier. "Macchi C.202" 10 pages including 5 photos and 8 pages of sketches (a la 'Aerofan').

JP-4 (JP-4, CP 1550, 50100 Firenze; L 27.000 Europe, L 30.000 elsewhere).

8/92 (98 pages) "Battaglie Aeree in Cielo di Pace" 12 pages including 14 photos and map locating all aircraft shot down in 'peacetime'. "Dal Vietnam al Golfo" 6 pages including 5 photos of OV-10s. "I

Falchi di Re Leopoldo" 8 pages including 7 photos, one color side-view drawing, and cutaway drawing of Belgian Fiat CR-42.

9/92 (98 pages) Color photos: Greek T-37 '79' & F-4E '432'; Belgian A.109 'H03'; German An-26. "La Difesa dell'Arcipelago" 12 pages including 15 color photos of Japanese a/c ((F-15, F-4, F-1, C-1, E-2, & CH-47). "Battaglie Aeree in Ciel di Pace" (II) 12 pages including 24 photos. "C'era una Volta un Orco di Nome Futter" 8 pages including 7 color photos (Polish, East German, & German). "Super Skyhawk" one page with 3 color photos (Singapore).

10/92 (98 pages) "Ai Confini dell'Iraq" 8 pages including 12 color photos of Italian F-104 in Turkey. "MosAeroShow '92" 11 pages including 19 color photos. Color photo Niger C-130 'SUMBH' (incorrectly identified as 'Nigeria'). "Aershow in Ungheria" 3 color photos (Romanian IAR-99, Hungarian Su-22M, & Polish TS-11 aerobatic team). "La Germania ci Riprova" 3 color photos (German MiG-29 & An-26 and Spanish SF-5B). "I MiG-29 della Luftwaffe" 6 color photos.

11/92 (98 pages) Color photos: St. Vincent & Grenadines Islander 'J8-VAT' and Venda Defence Force CASA C.212 'VDF-040'. "Battaglie Aeree in Ciel di 'Pace': Part III" 10 pages including 17 photos (Italian P-38/F-5, Yugoslav P-47, Bulgarian MiG-17F) and list of civilian a/c destroyed by enemy action since 1947. "Stelle Rosse nei Ciel Polacchi" 10 pages including 15 color photos of Russian a/c stationed in Poland (Su-24, Su-27, MiG-25, Mi-24, & An-12). "L'Est alla Riscossa!" color photos: Bosna Air Yak-42 'CCCP-42385', VB Air (Macedonia) Tu-154M 'CCCP-85624', Georgia Aeroflot Tu-154B2 'CCCP-85496', VIA/Varna Tu-154M 'LZ-MIK', CSA B.737/500, Macedonia Tu-154M 'LZ-MIR', Estonian Air Tu-134A 'ES-AAK', Lithuanian Airlines B.737.200 'LY-GPA', & Baltic International Tu-134B3 'CCCP-?'.

AEROPLAO: Revista de Historia Aeronautica. Spanish annual magazine, the official publication of the IHAC created in 1983. Very similar to the French magazine, ICARE. Deals with the history of Spanish aviation. One issue per year. Price US \$12.00.

#1 1983: 50th anniversary of the flight Sevilla-Cuba-Mexico by Barberan and Collar. History of Las Alcazares airfield. First balloon flight Pau-Guadix. First aeroplane flight in Asturias Province. The first Spanish flights in Africa.

#2 1984: Biography of Jose Ansaldo, commercial pilot. Dornier Wal in Spain and the world. Spanish Expeditionary Squadrons on the Eastern Front 1941-44. Spanish Aerobatic Team (F-86). Potez 542 in the SCW. Intervention of the Spanish AF in Spanish Morocco.

#3 1985: Biography of Hevia, military pilot. Lockheed F-104 in the Spanish AF. Air combat over Guadalajara. March 1937. Aviation in Granada. Heinkel He-60 in the Spanish AF.

#4 1986: Ballooning in Spain; 1899-1934. Maurice Farman aircraft in the Spanish AF. Air Combat over Jarama; February 1937. History of El Rompedizo airfield. The Spanish AF in the 1925 uprising in Spanish Morocco. History of CANA Airline.

#5 1987: Biography of Emilio Herrera Linares. Spanish AF in the rescue of Tifarautin, Spanish Morocco. De Havilland DH-4, DH-6, DH-9, and DH-9A in the Spanish AF. Air Battle for Madrid: November 1936. Activities of ex-Legion Condor pilots in WWII. History of Matabacan airbase. CETA Airlines; the Sevilla-Larache route. Paratroopers in the Spanish AF.

POLAND

AERO TECHNIKA LOTNICZA (Bartycka 20, 00-716 Warszawa 36. 12 issues US \$32.00.)

8/92 (44 pages) "Spitfire V" 19 pages including 15 color photos, 6 b&w photos, color cover painting, 2 color side-view drawings, cutaway drawing, 2 pages of 1/72-scale drawings, 14 side-view drawings (RAF, RAAF, USAAF, Luftwaffe, Turkey, Portugal, Egypt, & Greece). "Pierwsza Zwyciestwo Dywizjonu 303" 3 pages including 3 photos and map.

9/92 (44 pages) "Bell AH-1 Cobra" 21 pages including 9 color photos [Israeli, Thailand, & Iran (incorrectly identifies as Iraq)]. 2-page cutaway drawing, 4 pages of 1/72-scale drawings, and 3 side-view drawings. "SB-2/B.71 w Lotnictwie Czechoslowacki" 4 pages including 7 photos.

10/92 (44 pages) "PZL P.11" 20 pages including 16 b&w photos, 8 color photos (Krakow Museum a/c as restored; this should put an end to any thoughts of any 'green' P-11c), 2-page cutaway drawing, 21 side-view drawings of prototypes and variants, 1/72- and 1/48-scale 6-view drawings of P.11c, and 2 color side-view drawings (both Polish, but more drawings in next issue). "MosAeroShow" 3 pages including 16 color photos.

USA

WWI AERO (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$ 25.00 USA or \$30 overseas).

#138 (146 pages) "Harry Jones' Aeroplanes" 6 pages including 6 photos. "Week & Riggs & Wehr" 2 pages including 9 photos. "Johnsons' Aeroplanes" 11 pages including 7 photos and 6 pages of scale drawings of three pre-WWI monoplanes (Johnson, Aviatik, & Hanriot). "Unequal-Span Wings" 3-page analysis of the wings of the SVA. "Lohner L.127" 4 pages including 3 photos. "Archiv" 8 pages with 29 photos inside the LVG factory. Centerfold

drawing: Sopwith Pup taking off from a small lighter; ideal diorama subject. "Synchronizer: Part II" 8 pages. "3-Views from Photographs" 7 pages. "Engines" 3 pages of photos and drawings of Napier Lion. "Drawings" 8 pages (Austin AFB.1 Ball, Bleriot XI, Knoller-Albatros B.I, FBA, SAL 2).

SKYWAYS (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$25.00 USA or \$30.00 overseas.).

#24 (84 pages) "Movie Planes" 5 pages including 21 photos. "Kalinin and his Planes" 15 pages including 18 photos and 5 pages of scale drawings [K-1, K-5, & K-12 (a twin-engine flying wing)]. "Curtiss BFC-2 Project" 4 pages including 9 photos. "Focke-Wulf FW 58" 4 pages including 5 photos and 2 pages of sketches. "Ford Flivver Update" 2 pages with 5 photos. "New Era Model A" 2 pages with 7 photos. "Junkers-Larsen JL-6/F.13" 2 pages with 4 photos. "Skyway Gallery" 6 pages with 10 photos. "The Boomerang" 4 pages including 5 photos and small 3-view drawings. "Bird of Paradise" 3 pages with 6 photos. "Levasseur PL 1 to PL 8" 7 pages including 11 photos. "Planes over England" 4 pages with 10 photos. "Curtiss A-12" 6 pages with 5 photos of interior.

PRI-FLY (IPMS Washington DC, c/o Carol Fleckenstein, 13816 Choptank Ct., Centerville, VA 22020; 4 issues \$8.00 for US, \$9.00 all others).

82 (16 pages) "Aircraft at Pearl Harbor: Commander's Fuchida's Kate" one page with well-researched color scheme. "Building Revell's Battleship Arizona" one page. "The Lockheed Constellation" 4 pages on converting the Heller kit to a French engine test bed. "McDonnell F3H-2 Demon" one page on modeling the Emhar kit. "Skoda D.1" one-page review of the KP kit.

Compiled by Olivier Steinhauser (SAFCH #1140), Case Postale 288, CH-1233 Bernex, Switzerland. [Editor's note: One copy each of issues #7, #8, and #9 are available through the SAFCH Sales Service.]

JET & PROP.

German magazine, created in 1991. Deals mostly with the history of German aviation, but also has some small-air-force article. Six issues per year. Subscription DM 60.00 (about US \$40.00) per year. Article of small-air-force interest are:

1/91: Modern Iraqi AF. 2/91: Indian HF-24 Marut (Part 1). 3/91: Indian HF-24 Marut (Part 2). Luftwaffe support of the uprising in Iraq 1941 (Part 1). 4/91: Luftwaffe support of the uprising in Iraq 1941 (Part 2). Junkers Ju-88 in the Spanish AF. 5/91: Nieuport "Bebe" in the Tsarist Russian AF. 6/91: not issued. 1/92: Junkers Ju-52/3m in the Swiss AF. Photos of Do-24, Do-215, & FW-190 in Soviet markings. 2/92: Romanian AF 1939-44 (Part 1). 3/92: Romanian AF 1939-44 (Part 2). 4/92: Hungarian Night Dive Bomber units using He-46 and Ar-66. Photos of Turkish P-47 and Romanian Potez 63.11 & IAR-37. 5/92: Photos of He-46 on their delivery flight to Hungary.

Publisher: Verlag Heinz Nickel Buchvertrieb, Landauer Strasse 100, DW-6660 Zweibrücken, Germany.

Compiled by Olivier Steinhauser (SAFCH #1140), Case Postale 288, CH-1233 Bernex, Switzerland.

"I am preparing an article, hopefully with drawings, for SAFO about early Soviet aircraft exports. These include DH-9s, R-1s, and Junkers F-13s to Afghanistan, Persia, Mongolia, and China. U-1s to China and Persia. I-2bis, a Nieuport 24, and a Sopwith 1 1/2 Strutter to Afghanistan, an ANT-9 to Turkey, U-2s to China and Turkey, and R-5s to China, Persia, and Turkey.

If anyone has unpublished or rare information on these aircraft, or photos, please write!"

Lennart Andersson (SAFCH #68), Tiundagatan 52B, S-752 30 Uppsala, Sweden.

"BREAKING UP LARGE AVIATION BOOK AND MAGAZINE COLLECTION - Magazines such as *Aeroplane Monthly*, *Air Classics*, *Aviation Historian*, *Fly Past*, etc. Books such as *Time-Life's Epic of Flight*, *Aircraft of the South African Air Force*, *American Warplanes*, *Flyin' Jenny -- The Cartoon Strip*, etc. Send legal-size SASE."

Burt Leake (SAFCH #665), 4291 Larchwood Place, Riverside, CA 92506.

DISPOSAL: United States Strategic Bombing Survey, **STATISTICAL APPENDIX TO OVER-ALL REPORT (EUROPEAN WAR)**, Washington GPO, 1947. 166 pages. The original is listed in used-book catalogs as "very scarce" and sells for \$100.00. This photo copy is available for only \$20.00. Contact Jim Sanders, 27965 Berwick Dr., Carmel, CA 93923-8518.

"I have been corresponding with fellow SAFCH member Burt Leake; we are both engrossed with 'Bill Barnes' of the 1930s-40s and 60s. Do you recall this 'Hero' of the air? Both Burt and I have drawings of Barnes aircraft, and since this is possibly of small-air-force interest, we would like to contact other Bill Barnes fans."

Bill Shenk (SAFCH #599), 21957 Crescent Court, Farmington Mills, MI 48335.

"Last week, I bought the new Huma kit of the Dornier Wal. This is a very good, although at about US \$45 a rather expensive, kit. I have some photos of the Wal in Columbian Air Force markings and I would like to build my kit in these colors. However, since the photos are in b&w, I do not know the

correct colors. Therefore, I would be very pleased if any SAFO reader could help me.

"I am also searching for information on the markings used by the Hondurian Air Force before WWII. I would like to build either a North American trainer or a Boeing 40 in the colors of this Air Force. Can anyone help?"

"Available here in Belgium is a good looking, short-run kit of the Percival Pembroke. The price is about US \$26.00. This should be of interest to SAFO readers."

Calsyn Frans (SAFCH #854), Oude Staatsbaan 21, B-9991 Maldegem-Adegem, Belgium.

"I would like to contact people who are interested in an exchange slides. I need slides from the following air forces (army/navy): South Vietnam, South Korea, Cambodia, Middle and South America, Africa (except SAAF), and the Middle East. In return I can provide slides from Russia and other former Warsaw Pact Air Forces, including the Albanian Air Force [F(T)-2, F(T)-5, F-6, F-7, H-5, Z-5, Il-14, CJ-5, etc.].

George G. J. Kamp (SAFCH #138), Pijperstraat 32, 7604 KZ Almelo, The Netherlands.

WANTED: Photos and color schemes for the RP-63C2 Bell "Flying Target".

Jaromir Stepan, Editor ZLINEK, P.S. 8, 763 14 Zlin 12, Czechoslovakia.

"Authors/researchers seek information, photos, samples, and anecdotes regarding manufacturer, distribution, and operational use of US, Allied, and other "blood chits" (also known as "escape flags", "goolie chits", or "warrants"), both official issue and theater-made, from all wars and periods (pre- and post-WWI, colonial, WWI, pre-WWII China/Burma, Spanish Civil War, WWII, Korea, Cold War/Cuban Missile Crisis, Vietnam, Persian Gulf, and current) for definitive history. Contact the author at either the address listed below or the Blood Chit History Project, PO Box 11131, Berkeley, CA 94701-2131. Or, call R.E. Baldwin (510) 527-1394 or Thomas Wm. McGarry (503) 639-4110."

Thomas Wm. McGarry (SAFCH #950), 5495 Tree St., Lake Oswego, OR 97035.

"Update on the Congolese civil war project: When this project was started in the summer of 1990, I expected it to be a short and simple task. However, the combination of my job keeping me away from home for months at a time and the need to play catch-up when I was home has resulted in delays that surprised me when I recently resumed work. To all who have offered or given your invaluable assistance, my apologies for not getting back in touch in a timely manner. Things are expected to smooth out in the next few months and, if I do my part, your work will still see the light of day."

Rod Thorsen (SAFCH #967), 2405 1/2 S. Eye St., Bakersfield, CA 93304.

"Mr. Santiago Flores, one of your members, has suggested I contact you in the hope that you may be able to help me trace friends or family of a man who is the subject of a history I am researching. This material is for a book about the a/c and crewmen failing to return from Bomber Command's raid on Aachen, Germany, on the night of May 24/25, 1944. "I am interested in Mario Alfred 'Freddie' Fernandez de Leon who was the pilot of Halifax III LW124 'N'. The Ottawa Journal's Casualty List for 29 June 1944 gives his address as Oakland, California. Other information: -P/O Mario Alfred Fernandez de Leon J86015/NCO #R143476; RCAF - 429 Sqdn. Pilot. Age 27; Son of Jose and Amelia E. Fernandez de Leon of Guatemala; Killed in Action May 24/25, 1944; Buried at Bergen-op-Zoom Canadian War Cemetery - 82, Netherlands. Plot 5, Row G. Grave 12

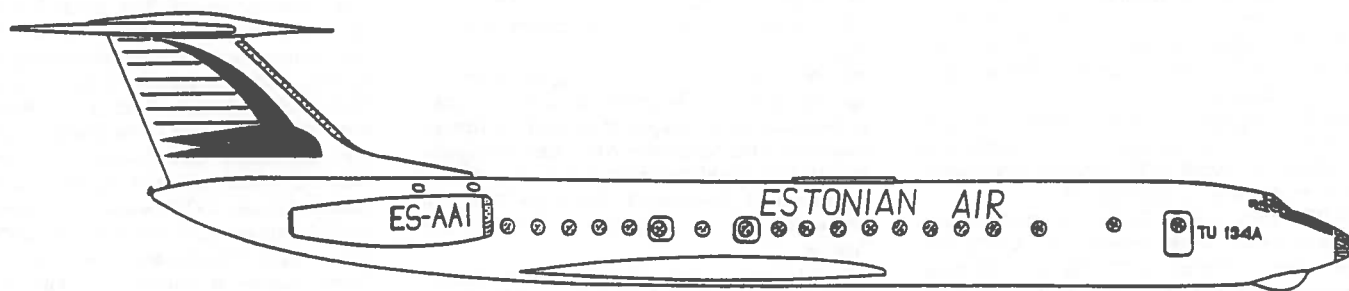
"I would be grateful to you for any effort you might make to help me find information about the gallant young man."

Michael M. LeBlanc, 16 Greenore Crescent, Acton, Ontario, Canada L7J 2T2.

"A book was published in Bulgaria in 1990 or '91 titled, 'Samolyeto Stroyenoto v Bulgaria', by Kiril Krislov and Noifer Dicfev. Does anyone know how to order a copy?"

Gary Beattie (SAFCH #1206), 6331 Jogues, Montreal, PQ, Canada H4E 2W4.

ESTONIAN Tu-134



Black: "ES-AAI", "Tu-134A", antiglare panel, and borders around doors and emergency exits.
Light Blue: "Estonia Air" and horizontal stripes on fin.

THE AIRCRAFT OF AEROFLOT IN THE NEWLY-INDEPENDENT STATES

Part I: The Baltic Republics

Peter Batuev

Background

The USSR existence as a state ended in late 1991 when, in Minsk, the presidents of Russia, Ukraine, Belorussia, and Kazakhstan proclaimed the formation of the Independent States. (The Baltic states of Estonia, Latvia, and Lithuania had already left the USSR in the Summer of 1991.)

There was, at that time, only one air transport company in the USSR, the state-owned AEROFLOT (Soviet Airlines). The Soviet Ministry of Civil Aviation and Aeroflot were equal partners. Aeroflot was organized on a "regional administrative principle" which meant that the local aviation enterprises, which owned the aircraft, were controlled from Moscow.

When they declared independence, the Baltic states began the destruction of this structure by taking over all Aeroflot property located in their territories. National air companies were established and reinstated according to international agreements on civil aviation. In the other ex-USSR states, aviation enterprises remained under the framework of Aeroflot, but now all activities were controlled from the new capitals.

The process of the USSR's disintegration was accompanied by serious economic problems which extended to civil aviation. The crisis spread to all fields of air transport and flight schedules were reduced because of increased fuel cost. Only the international routes were paying concerns. In addition, the aging Aeroflot fleet of aircraft designed in the 60's, such as the Tu-154, Tu-134, An-24, and Il-62, aggravated the economic difficulties. The cargo fleet plays a significant role in preventing economic depression in civil aviation. Aeroflot utilizes heavy lifter such as Il-76, An-124 Ruslan, and even old An-12, for cargo transportation around the world, especially to the Middle East and Africa.

The above events all played a significant role in changing the national markings and painting schemes of the aircraft in the nations of the former USSR. Some aircraft were repainted in the West (for instance, Il-86 and Tu-154 in Holland) because the Soviet industry does not manufacture modern paints. This led to a degree of monotony in paint schemes; being mostly converted Aeroflot schemes.

The Baltic Republics

In the Baltic states, economic difficulties lead to two different aircraft paint schemes. I will refer to them as the "Post-Aeroflot scheme and the "Paradise" scheme. The first is simply a quick conversion of the Aeroflot scheme, and the second consists of newly designed national paint schemes. In both schemes, the Aeroflot registration numbers were replaced by the international registration ES- for Estonia, LL- for Latvia, and LY for Lithuania.

It is interesting to note that in the "Post-Aeroflot" schemes, Aeroflot's registrations remain on the wing. What a paradox! Moreover, this registration is still used in radio transmissions between the aircraft and the ground services. On an Estonia Airlines aircraft in this scheme even the word "Aeroflot" remains.

PHOTOS on page 2 (all photo by the author)

a. Tu-134 in standard Aeroflot colors: double strip along fuselage, Aeroflot title and symbol - blue; registration, antiglare panel - black; USSR flag on fin - red.

b. Estonian Tu-134 in "post-Aeroflot" markings. ES-AAE registration on engine, but CCCP-65022 on wing. Note the crude over painting of the Aeroflot symbol, USSR registration, and red flag.

c. Estonian Tu-134 in "paradise" markings. Aircraft is overall white with ES-AAI registration on engines and wing.

d. Lithuanian Tu-134 in "post-Aeroflot" markings. Double stripe on fuselage is blue. The national flag is yellow/dark green/red. The registration LY-ABH is black.

PHOTOS on page 34 (all photo by the author)

e. Lithuanian Tu-134 in "paradise" markings. The double strip on the fuselage is green; the upper part of the fuselage is white, the bottom part of the fuselage and the wing are grey. "Lithuanian Airlines" and "LAL" on fin are dark green, registration LY-ABD and antiglare panel are black. In front of the open door, above the stripes, are the national colors.

f. Lithuanian Yak-40 LY-AAB in "paradise" markings.

g. Lithuanian An-24 LY-AAG in "paradise" markings.

h. Latvian Yak-40 in overall white and red scheme except for the black registration CCCP-88187 and multicolored insignia on the nose.

Peter Batuev (SAFCH #1243), PO Box 154, 198302 St. Petersburg, Russia.

[Editor's note: This is the first of a three-part series on the markings of the civil and governmental aircraft serving the newly independent nations that have arisen from the ruins of the USSR. Part II will cover Russia, Moldavia, Belorussia, and Ukraine. Part III will cover Azerbaijan, Kazakhstan, Turkmenistan, and any additional nations that Peter may be able to document by that time. While not strictly "small" or even "air force", these markings are of interest to the SAFCH because of the necessarily close connections between civil and military aviation in newly independent countries.]

MYSTERY PLANE: A deluge of mail arrived identifying the mystery plane on the cover of SAFO #64. Those who recognized the mystery plane as a Kaproni Bulgarski KB-2UT include: Calsyn Frans & Guy Roberty (Belgian), Gary Beattie (Canada), John Jarratt (England), Daniel Bajno, Pascal Faucard, Jean-Yves Goffi, Christian Hotte, Michel Ledet, & Frederic Liege (France), Lennart Andersson (Sweden), Olivier Steinhauser (Switzerland), and Thomas Healy (USA). If I've left anyone off this list, my apologies. The mail has been heavy over the holiday season and my filing system may not have been up to the task.

Many of the answers came from readers in France. I suspect this is partially in response to my "challenge" that the a/c was too "too pretty to be a French a/c", but mostly because a French magazine recently carried an article on the Kaproni Bulgarski a/c which included photos and a 3-view drawing of the KB-2UT. (Several reader sent xerox copies of this article, or the pertinent pages, and the extra ones are available to the first couple of readers who send a legal-size SASE to the editorial office.)

A composite of the replies received is as follows: "The aircraft shown is a Kaproni-Bulgarski KB-2UT which was a Bulgarian-designed and built version of the Italian Caproni 113. (You should remember that France did not have a monopoly on ugly machines during the 1920s and '30s.) This was a training aircraft for pilots and observers, eight of which were built for the Bulgarian army in 1934. Registrations were: LZ-CTA to -CTF, -CTH, & -CTI. At the time, Bulgaria, as an ally of Germany in WWI, was prevented by the Treaty of Neuilly from having an air force. There was, however, a small clandestine force operating under cover of civilian registrations. This air force was not officially recognized until 1937.

"The powerplant used in the KB-2UT was either the 250-hp BMW IV or Hispano-Suiza, or a 230-hp Junkers II. The photos shows LZ-CTI, the last of the type built, which was probably a Junkers-powered machine. The type was not popular and a six improved Walter-Castor powered variant, the KB-2A, were built.

"The complete story of all KB and DAR products built in Bulgaria can be found in a series of articles by Jean Noel and Malcolm Passingham that appeared in the French magazine 'Le Fanatique de l'Aviation' nos. 259-161 (June-August 1991)."

[Editor's note: My sincere thanks to everyone who responded to the SAFO (either correctly or incorrectly) and special thanks to those who took to time to communicate your answers to John MacGregor, who started all this by sending in the photo for identification.]

"I've finally had a chance to read through the last three issues of SAFO, and I would like to offer the following odds and ends.

"I especially enjoyed the piece by John Cochrane on 'Aircraft in the Balkan Wars' in SAFO #64, a treatment that has been long overdue. I hope you can pass on my congratulations to him for a job well done.

"Regarding the article on 'Paraguayan Naval Aircraft' (SAFO #62): (1) The N3N-3s were Lend-lease aircraft, but, unusually, were used airplanes. They had been slated for delivery (with wheel and float undercarriage) for November 1943, but were apparently not actually turned over to the Paraguayans until c. April 1944. A Military Intelligence Division (MID) report for 1 January 1949 counted two still on strength, but with the FAP (at

least for 'accounting' purposes) at that time. What US Museum purchased NAVAL 126? I find it strange that they received serials E3 and E5 initially. Does this suggest that E1 may have been assigned to the solitary Breda Ba.25Idro acquired by the Navy (which the author does not list) and which was on-hand as early as 1939 and as late as 31 October 1947? (2) Regarding the RD-3 Seabees, the Air Order of Battle for the FAP for 1 January 1949 shows two on strength. Candidates include c/ns 1005 and 1037 ex-N6772K and N6749K. By 1 July 1949, only one was reported on hand. (3) Regarding the Grumman Goose, the Navy acquired three under Military Assistance Sales (MAS) in November 1959, and all were JRF-5s. All three transited Brazil on delivery from Atlanta, Georgia, in the second half of November 1959. At that time, they bore serials T-001, 002, and 003, but at least one of these also bore civil registration ZP-TCI for some reason. Of the aircraft the author listed, s/n 0127 (c/n B.29 ex BuA 37776) is almost certainly ex-Argentine Navy, which suggests yet another Goose! Did the Navy and the FAP operate G-21/JRFs? A/n 0128 (the prefix '0' is how they are shown in FAA files) has also been given as c/n 1100. This aircraft became N3282 in the same sale as the other two (N3283 and N3284). (4) On the SNV/BT-13s, oddly, a USAF publication published in 1959 shows the Paraguayan Navy with "SNVs"! (5) The two Cessna U206As (s/n 130 and 131) were purchased in August 1966, the two U206Cs following in September 1968 and December 1968 respectively. (6) The two ex-Argentine Navy North American AT-6As were actually handed over on 25 November 1969. These had both been junked by 1974. (7) Some sources claim that the Navy got two Bell 47s from the Argentine Navy in 1970, but I have seen no confirmation of this. (8) The two Cessna 150Ms were delivered in February 1976. (9) The C-47 was donated to the Navy in November 1979. There is something wrong with the s/n-c/n of this aircraft, as s/n 42-93587 was salvaged in the Philippines in 1946! (10) The Hillers donated by Chile in 1981 seem unlikely to have been ex-FACH aircraft. Perhaps ex-Chilean Navy? FACH only received four UH-12E (so far as I can prove). Two of these were w/o (September 1980 and September 1981), one was sold to Canada in 1978 and the other was withdrawn from use following an accident to instructional duties. More likely hand-over date for the aircraft, where ever they came from, is 1978. (11) Just for the record, NAVAL 401 is a Cessna 401B, c/n 0217. However, to add a little confusion, I have a photo of a Navy Cessna 310 as serial 401 circa 1989! (12) One last possibility: The Italians presented a Caproni hydroplane to the Paraguayan Government which crashed 23 June 1923 piloted by Tte Escario. It is not clear what branch of service this aircraft was intended for.

"Regarding 'Aircraft of the Chaco War: Paraguay' (SAFO #63): (1) The earliest known mention of CR.20 service is 3-6-33. A US Commercial Attache report dated 10 May 1033 stated, 'Mr. Rogers saw seven (emphasis mine) new Fiats at Asuncion (2) With regard to the MS.130EP2, 'Revista Aerea' (Mexico) for May 1927 reported that Paraguay 'had recently received two Morane-Saulnier trainers with 130-hp engines. (3) A de Havilland DH-80 Puss Moth was purchased from private sources in Argentina during the war, but was impounded by the Argentine government when the Bolivian ambassador protested. It was probably the former R 193 of P. Mortola. (4) SM.59bis R-1 was still counted on strength as late as 21 August 1943. (5)

One Macchi M.18 was still nominally on strength on 21 August 1943 although listed as 'under overhaul'. (6) Curtiss D-12 Falcon was not an 'O-1E', and I really must ask that our folks exercise caution in assigning US service designations to aircraft that do not rate such appellations. It was still nominally on strength 'but grounded' in 1943. (7) A US intelligence report dated 21 April 1936 stated that 3 Curtiss Robins were bought by Paraguay during the war, but perhaps only one was actually delivered. They almost certainly came via Argentine civil sources. (8) An Air Intelligence Study of the FAP dated 25 September 1946 showed the service with one Waco with a R975E2 engine at that time - but this may have been a later acquisition. (9) Too bad that the author didn't mention that the single Breda Ba.15S was almost certainly ex I-AAUG. (10) A single Cant.26 was acquired in May 1933 (ex R 183) but was apparently lost either on delivery or shortly thereafter, killing CPT Jose D. Jara and Tte. Niemman. (11) I am not comfortable with the identity of the Consolidated 'PT-11' as mentioned above. (12) Another questionable identity is the Fleet '10'. A better photo of the Fleet will probably give us the clues we need to pinpoint exactly what model it is. The reason I fell we have to exclude the Model 10 from consideration is really rather elementary: so far as I can determine, the very first Model 10s were a batch of 30 Model 10Bs built for China in May 1935. I think it is much more like that the aircraft in question is one of the 13 Fleet 2s exported to Argentina (civil identities R 49 to 54 and R 59 to 64), the last seven of which were delivered in 1933. One Fleet 10 did reportedly go to Argentina, but the exact date of delivery, given in sources as 'between 1931 ... and 1935' seems rather vague. (13) By 1943, the FAP had a single Keystone Pelican being used as a transport. Just when this aircraft was acquired is not known, but it would seem to be the type of cast-off aircraft that Paraguay acquired during the war. Some were available in Argentina and Sao Paulo, Brazil.

"Regarding the article on Bolivian aircraft in SAFO #64, I'd like to make some comments, mostly corrections to the designations: (1) In his definitive Putnam book on Vickers Aircraft, C.F. Andrews, quite correctly, identifies the first aircraft type listed in the article as 'Vickers Type 143 Bolivian Scout', and this is the way it should be presented. (2) I've seen the 'Weight and Balance Reports' for the Curtiss Model 35 Hawk IIs and Sea Hawk IIs purchased by Bolivia, and at no time were they ever referred to as 'Curtiss-Hawk F11C-2 Hawks IIs' in Curtiss documents. This is a misnomer that has annoyed me for years and is absolutely not correct. (3) The correct presentation for the next aircraft listed is: Curtiss-Wright CW-14R (not 'CW-C14R'). (4) In the Breguet XIXA.2 description, the name of the one aircraft is 'Battallon Colorados'. It has always intrigued me that, as at least three of the aircraft were presented by popular subscriptions by the cities of La Paz, Oruro, and Potosi, (two of the aircraft bore two of these names) that the third city name was not used as well. I pointed this out to the author and informed him that I had an intelligence report dated 21 December 1927 showing that one was named 'Oruro II' (for some reason). (5) Once again according to Andrews, it should be 'Vickers Type 149 Vespa III'. (6) According to Curtiss, the Falcons were 'Curtiss Falcons' (although there is one example of presentation as 'Curtiss Falcon Cyclone F-2'). (7) The type should be 'Vickers Type 155 Vendace III'. (8) The 'Cur-

(Continued on page 12)

CROATIAN AIR FORCE 1941-1945

Part 1: Fighter Aircraft

Frederic Liege

Introduction:

The civil war that is now raging in the former Yugoslav federation is deeply rooted in history. One of the more recent acts of this sad history occurred some fifty years ago when an independent Croatia fought on the side of the Axis powers.

It is almost impossible to find any information about that dark time. Under the Communist regime, the history of fascist Croatia was a prohibited topic. Very little new information will become available in the foreseeable future since the archives of the "Ustachi" regime are now out of reach in Belgrade. The following article is distilled from various public sources which themselves were derived from German and Italian archives.

History: 1941-1945

On 10 April 1941, the independent state of Croatia (Mesavina Drzava Hrvatsa) was proclaimed by COL Slovka Kvaternik, in the name of Ante Pavelitch, chief of the "Ustacha", an ultra-nationalist organization. The new state was, in fact, not independent, but a puppet regime of the Italian and German governments.

The land forces of the new nation were headquartered in Varasdin, while air and maritime forces were headquartered in the capital, Zagreb. The majority of these forces were sent to the Eastern Front where they perished in the cauldron known as Stalingrad. The Croatian airmen in Russia were incorporated into a "Croat Staddein" under direct German command. When the momentum of the war turned against the Germans, large numbers of Croatian pilots defected to Soviet and partisan forces. The last Croatian pilot under Luftwaffe command surrendered at Falconara, in northern Italy, in April 1945. The last organized Croatian force surrendered to allied troops on 15 May 1945. They were subsequently handed back to Tito's forces.

Uniforms of the Croatian Air Force.

Initially, Croatian airmen wore standard Yugoslav uniforms except for the rank insignia on the collar which were reversed. Airmen of the "air legion" which served in Russia, wore Luftwaffe uniforms with the Croatian checkered-insignia on the right arm. On top this insignia was either "Kroatien" in white or "Hrvatska" in white or red. A winged badge was worn over the Luftwaffe eagle on the right breast.

In May 1942, a new uniform, similar to the Luftwaffe one, was created. The cap was identical to the German one with an open oak-leaf crown, with an insignia consisting of an open-winged bird. Above this was a white metal badge carrying the letters NDH. Rank insignia were the same as in the Luftwaffe except for the addition of the rank of "Officer Cadet". Colors of the service were carried on the collar insignia and on the shoulder strap. These colors were: Flying Personnel (light blue); anti-aircraft artillery (scarlet); mechanics (brown); and service personnel (green).

Additional information on Croatian uniforms and units can be found in the new Osprey "Men at Arms" series, particularly those focused on foreign volunteers with the Wehrmacht and

Luftwaffe: #131 "Germany's Eastern Front Allies" and #147 "Foreign Volunteers of the Wehrmacht".

Aircraft Colors and Markings

Aircraft based in Croatia wore the standard Yugoslav camouflage until this was replaced by dark green upper surfaces with light grey under surfaces. Standard Eastern Front markings, consisting of yellow bands around the fuselage, on the nose, and on the lower surfaces of the wingtips the nose, were carried. The Croatian checkered insignia was painted on the tail and in four wing positions. A four-digit serial, in black, was carried on the fuselage.

The aircraft in Croatian units under direct German command were in standard Luftwaffe camouflage except for a winged "ustachi" emblem under the cockpit on both sides of the fuselage. From 1944 until the end of the war, Croatian aircraft carried the "Cross of King Zvonimir" ("dreiblatt") in the six positions usually occupied by the German "griechenkreuz". (Does anyone know the exact date of this insignia was introduced?)

Fighter Types

Messerschmitt Bf-109: Croatian units based in Russia used various subtypes of Bf-109 including E3, E4/trop, G2, G10, and G10/U4. So far, I have not found any documentation on other subtypes that may have been used. All together, about seventy Bf-109 of various subtypes were used by Croatian pilots. Some were used in Croatia and carried Croatian serials. The only known serial is 2301.

Focke-Wulf FW-190: Bill Gunston (Ref. 3) states that Croatia used FW-190s, but I have not been able to find any confirmation of this.

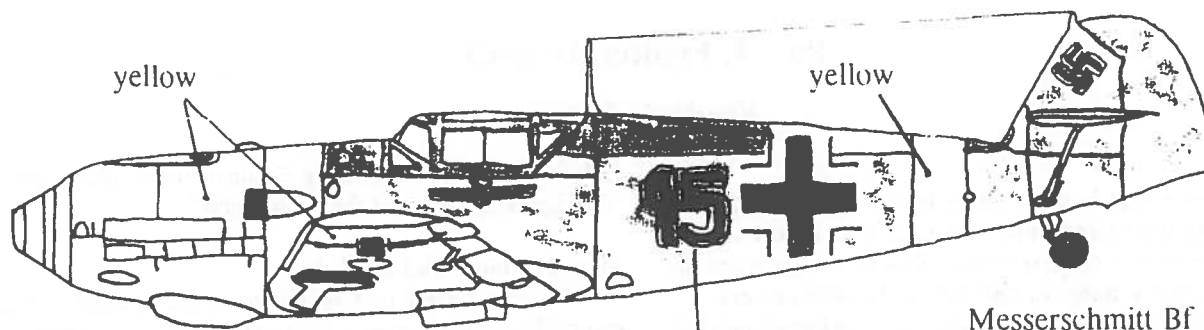
Ikarus IK-2: Four were recovered from scrapyards after the fall of Yugoslavia. Serials were 2901-04. At least one was still in use one year later. None survived the war.

Avia B-534: Four examples, from either Yugoslav or German sources, were used. The serials and eventual fates are unknown.

Morane-Saulnier MS-406: 36 examples were acquired from German war booty in 1942. Probably they continued to carry French camouflage with overpainted Croatian markings, as was the case of French types impressed into Italian and Romanian service. (An article in a recent issue of the IPMS-Germany newsletter lists these as MS-410 with fixed radiators, but it does confirm the the number of machines to have been 36.)

Fiat G-50bis: Nine examples were acquired from Italy in June 1942. Serials were 3501-3503-3509. Their fate is unknown except for one that still exists at the Belgrade Air Museum. It serial, 3505 is black outlined in white and shaded in black, in the Italian style.

Other fighter types used by the Croatian Air Force include 7 Yugoslav-built Avia BH-33 and at least one Hawker Fury recovered in 1941. In addition, the newsletter of IPMS-Germany states that 38 Macchi MC-202 appeared in Croatian inventory.

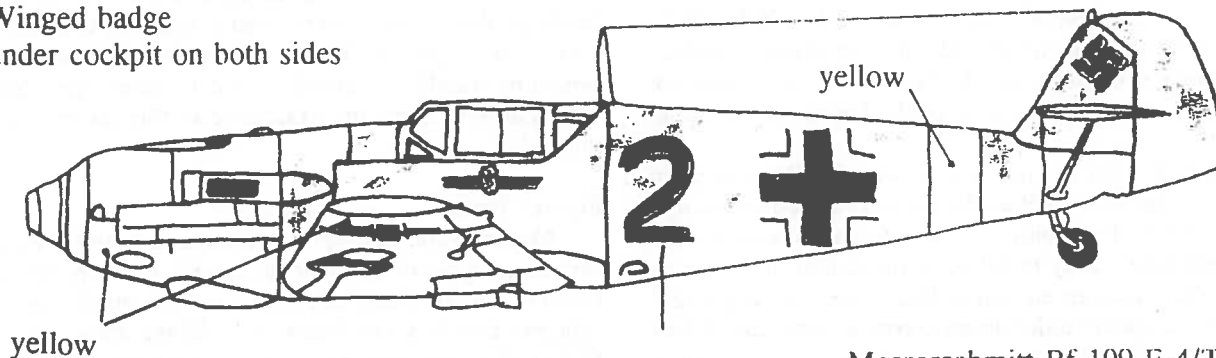


"15" in red outlined in white

Messerschmitt Bf 109 E-3
15 (kroat.)/JG 52
Ukraine 1941

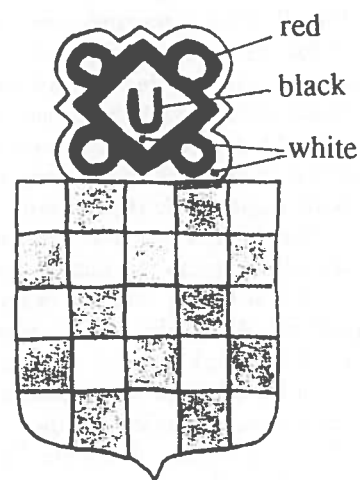
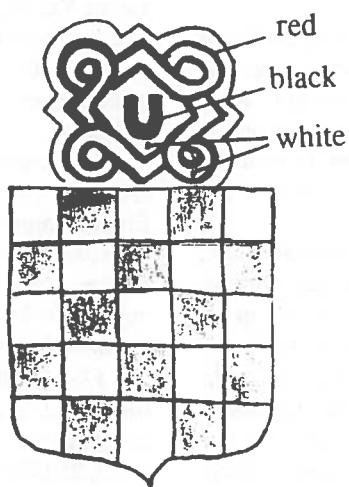
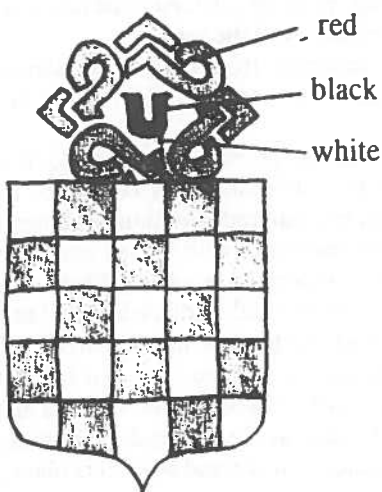


Winged badge
under cockpit on both sides



"2" in red, outlined in white

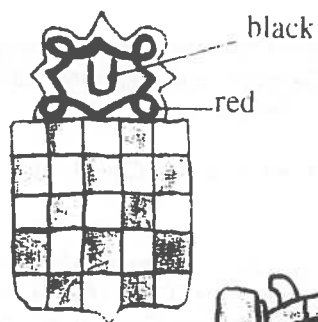
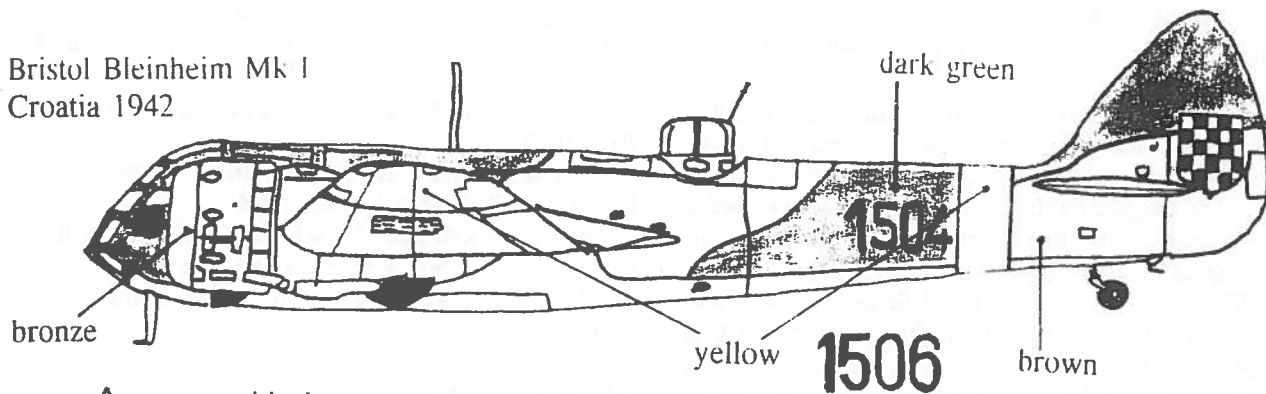
Messerschmitt Bf 109 E-4/Trop.
15 (kroat.)/JG 52
Crimea late 1941



15 (kroat.)/KG 53 emblem variants
(immediately under cockpit on both sides)

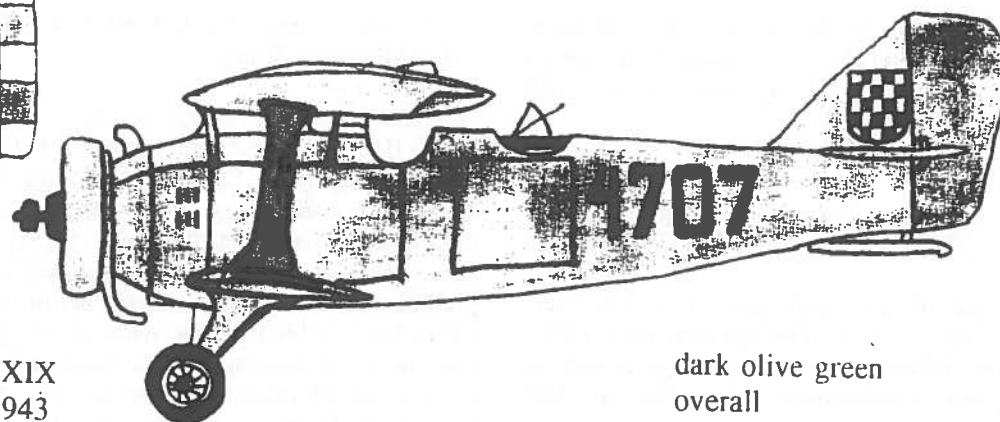
F.Liège October 1992

Bristol Bleinheim Mk I
Croatia 1942



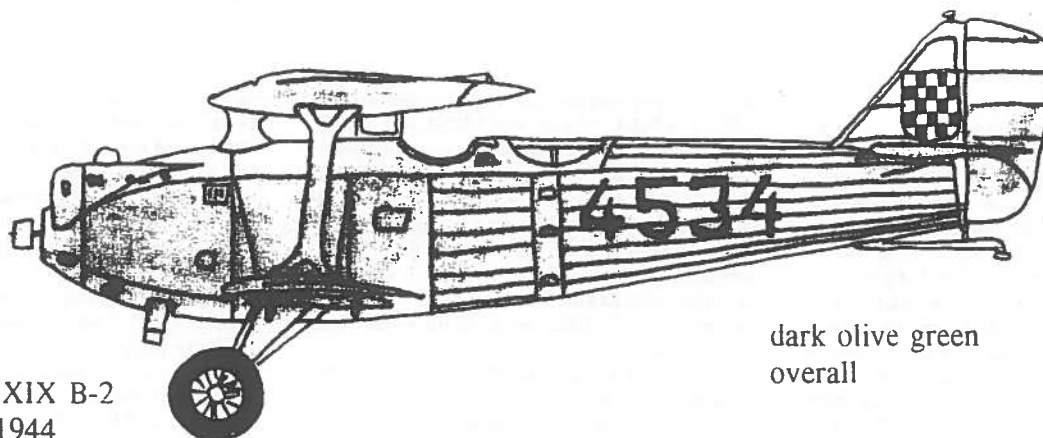
Bleinheim cockpit
insignia

Bréguet XIX
Bosnia 1943

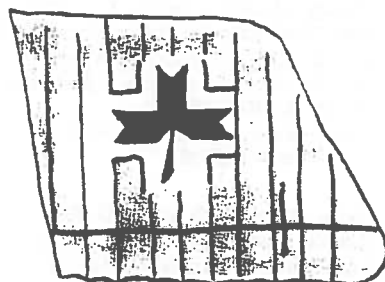
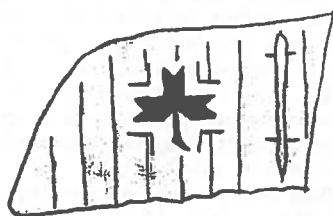


dark olive green
overall

Bréguet XIX B-2
Zagreb 1944



dark olive green
overall



Bréguet XIX B-2 wings markings

F.Liège October 1992

These were probably ex-Regia Aeronautica aircraft seized by the Germans after the Italian armistice in September 1943.

[Editor's note: Published in Hungary too late to be included in this article is "Horrido", the story of the air forces that fought with Germany on the Eastern Front. (See book review elsewhere in this issue.) The chapter on the Croatian Air Legion includes several good photos of Bf-109Gs with the "winged Ustrachi" badge. The English translation mentions the use of Bf-109E/Fs. The FW-190Fs are said to have operated alongside Ju-87Ds in a mixed battle/dive bomber squadron. Of great interest is a painting captioned "A South-African Spitfire IX shoots down the Morane Saulnier M.S.406 fighter of captain Cvitan Galic, the most successful Croatian pilot, in a low-level attack." The MS-406 is shown in dark green over light grey camouflage with the checkered insignia and black serials '2345'.]

[In the figure representing Bf-109G2, the winged badge is far too small but it is in the correct location. A corrected diagram will appear in Part 3 of this series. Also appearing in Part 3 will be a drawing of Fiat G-50 serial 3502.]

References:

1. L'uniforme et les armes des soldats de la guerre 1939-1945, Lilliane and Fred Funcken, Casterman ed., Tournai (Belgium) 1973.
2. Uniformes air/mer de la seconde guerre mondiale, Connaissance de l'histoire hors serie n.7, Hachette ed., Paris 1982.
3. The Illustrated History of Fighters, English edition (Finsbury and Salamander) and French edition (Bordas), Bill Gunston.

(Continued from page 8)
tiss-Wright Trainers' listed were in fact 'Curtiss-Wright CW-16Es' and were not serialised 'Trainer 1' etc; they were marked simply '1', '2', and '3', and I strongly suspect the same was true for 'Fokker 1' and 'Fokker 2' listed by the author. (9) The Ford in question was most certainly not a 5-AT-D, but rather a 4-AT-B uprated. (10) The Junkers K.43s were most certainly purchased as warplanes from the get-go. (11) I am not sure it is correct to include Ju-52 'Illampu' in this study, as according to my information, the aircraft did not reach Bolivia until 1937. (12) Bolivia also acquired at least three Klemm KJ-25s, and these were on strength as early as 19 October 1936 at Cochabamba, but I do not know the actual delivery date. Perhaps one of our German readers can help on this. (13) Also, I am distressed that the author used the very hard-won Bolivian serial information for the Curtiss and Curtiss-Wright aircraft types that I published in AIR INTERNATIONAL last year without so much as a thank you.

"Now a few comments on the excellent article and drawings on Brazilian Navy aircraft (SAFO #63): (1) The Curtiss F assembled by the EAN (Lt. Victor Carvalho e Silva, actually) was given s/n 9 and named 'Carioca'. (2) A War Department General Staff (WDGS) Intelligence Report dated 22 December 1932 refers to the Brazilian Navy as having Consolidated NT-1s as opposed to by-2s. Interestingly, these aircraft (in this case) were marketed as such, with USN designations. (3) With regard to the Fairey Gordons, the 'late' codes are

not entirely illustrative. Known were codes 4-EB-1, 4-EB-2, 1-EB-3, 4-EB-4, and 1-EB-5 to 1-EB-12. (4) Unless someone can show me that the six Brazilian Boeing Model 256s ever gained USN BuA numbers, let's stop referring to them as 'F4B-4'. (5) The Vought V66Bs were actually on strength by 10 December 1932. (6) Waco CSOs were on strength as early as 10 November 1932. It should be noted they also had the Brazilian designation M1W (as well as D1W). These were, for the record, c/ns 3705 to 3712.

"Air-Britain is going to publish my book 'Caribbean and Central American Air Force' in their monograph series. This book will cover military and naval aviation in that region from the beginnings to the present, and is heavily illustrated with both b/w and color images.

"Finally, Midland Counties Publications has accepted Leif Hellstrom and my book on the Douglas B-26 'Invader' in foreign service and we hope for a mid-1993 release date. Does anyone have a photo of a genuine FAEC B-26?"

Dan Hagedorn (SAFCH #394), PO Box 682, Centerville, VA 22020.

"Some comments about SAFO #64: I very much liked the excellent article 'Aircraft in the Balkan Wars' by John Cochrane. Early military aviation in the smaller countries is often difficult to research and it is always very interesting when someone writes about this period. On Bulgaria, I can add the following summarized from very extensive reports in Swedish newspapers of 1912. Note that the infor-

4. Aircam Aviation Series n.40, 43, & S17, Osprey ed., 1973.
5. Profiles n.242 (IK Fighters), 152 (Avia B-534), and 188 (Fiat G-50).

6. Encyclopedie illustree de l'aviation, Vol. 10, Atlas ed., Paris 1984.

7. The Illustrated History of Combat Aircraft of WWII, Bill Gunston, Salamander, London 1978.

8. Avions militaires 1919-1939, Connaissance de l'histoire hors-series nos 2 and 5, Hachette ed., Paris 1979.

9. Le fanatique de l'aviation n.249, editions Lariviere, Paris.

Acknowledgments

The author wishes to thank Christian Duteau of Avignon, France, and Boris Kolka of Zagreb, Croatia, for their kind help in providing information and references.

Frederic Liege (SAFCH #1242), 325 Chemin du Saule, 84140 Montfavet, France.

[Editor's note: Frederic's plans for future articles include: Part 2 Bombers and Army Cooperation Types; Part 3 Liaison and Training Types; Part 4: The Modern Croatian Air Force. The author would greatly appreciate any corrections or additions to this series of articles. He is seeking additional information on the Croatian Air Force both past and present, and he promises that all information used in future articles or updates will be fully credited and the material promptly return. Looking over the list of drawings he has planned for the future parts, I see he needs information to make drawings of Croatian MB-200, Letov S-328, Hs-126, Ju-87, Ca-310bis, Ca-311, Do-17K, Ca-164, Fi-156, Go-145, Ba-25, and FN-305.]

mation resembles the SAFO article, but some of it is conflicting and some is new.

"At the outbreak of war there were four Bleriot and Albatroses at Sofia and three pilots: Bogdanov, Petrov, and Topranktchiev. About twenty Bleriot, Voisin, Sommer, Nieuport, Farman, Albatros, and other types were acquired and pilots included eight Bulgarians (five without pilot's license), two Frenchmen (who were found not to be pilots at all), three Russians ('poor pilots'), and Burri and Rupp from Switzerland. 250,000 francs were paid for five Russian-built Farmans along with the one-month's service of three pilots, two mechanics, and four laborers. The best liked type was the Voisin with 70-hp Renault engine, but the Bleriot with 70-hp Gnome and the (three!) Albatros biplanes with 100-hp Argus engines were also well liked. One aircraft was shot down on 2 November while being flown by Topranktchiev, who was killed. The head of the air unit was Major Zlatarev. Two new Turkish Harlan Eidekkers were captured at Kirk-Kilisse. On 29 November 1912, Mittov and Bogdanov were flying a Voisin. A single Sikorsky S-VII (70-hp Gnome) was apparently sold to Bulgaria in 1912. The Russian-built Farmans were F-VIIs.

"Regarding the article 'Aircraft of the Chaco War'. LAB had a total of 9 Junker F-13s in service at different times but only 4 of these were still in service at the beginning of the war, as stated in the article. CHARCAS is reported to have been taken over by the FAB, but the other three were probably

(Continued on page 32)

SABRE DOGS IN THE YUGOSLAV AIR FORCE

Boris Kolka

At the beginning of the 1960s, the Yugoslav Air Force acquired some 130 North American F-86D Sabre Dogs. These came from USAFE units and, since they had to undergo extensive overhauling, it was decided that 30 Sabres were to be left as a source of spare parts. The first YAF began to equip with Sabre Dogs in 1962, and most of the aircraft had entered service by the end of 1963. The majority of Yugoslav F-86Ds were based at Zagreb-Pleso (Croatia) and Skopski Petrovac (Macedonia) air bases. Not all the Sabre Dogs were used as all-weather interceptors; a few were converted to a reconnaissance version which was retired during 1970 and 1971. The end of Sabre Dog service in the YAF came in 1974 when most of the western types were replaced by aircraft of Soviet origin.

When they first entered YAF service, the F-86Ds were natural metal (aluminum) overall with black radome and olive drab antiglare panel in front of the windscreen. Sometimes the radome was left unpainted; the color then being a dirty yellow, and sometimes the antiglare panel was not carried. Markings were standard for the YAF: roundels with red stars were in four positions: on both sides of the fuselage, on the upper surface of the port wing and on the lower surface of the starboard wing. The 5-digit YAF number was carried near the top of the vertical fin and the last 3 digits were applied to the upper surface of the starboard wing and the lower surface of the port wing. The positioning of the markings is shown on Fig. A.

The national insignia consisted of red star outlined with yellow on a white field within a blue outer ring (Fig. F). The national flag (blue, white, and red with a yellow-outlined red star) was carried on the vertical fin with the 5-digit number above it in black. Yugoslav AF Sabre Dog fighters received numbers beginning with 140 and 141, while the recce versions had numbers beginning with 143. The recce Sabre Dogs numbers seems to end with 14325 while the last known number for a Sabre Dog fighter is 14129. Other markings are standard: red turbine warning band around the rear fuselage, red no-walking lines on the inner flaps, and black lines on the wings (see Fig. A). while the

dump pipe on the port side of the rear fuselage was red. On natural metal (aluminum) aircraft, numerals on the front fuselage and on the wings were black. Those on camouflaged aircraft were white. All were 50-cm height.

Figure A shows the typical early camouflage scheme. Colors are Sea Grey Medium (FS 36187) and Olive (FS 34102) on the upper surfaces and PRU Blue (FS 35164) undersides. All markings are standard. The markings are also standard on the aircraft shown in Fig. B which has an unpainted radome. Figure C shows a different camouflage pattern often sported by YAF Sabre Dogs in the early 1970s. The aircraft shown in Fig. D has no number on the fuselage, but instead carries a unit badge. Unit badges were introduced by many units in the mid 1960s. This particular badge is shown in Fig. E.

References:

Bilten, Nos 5-6/1987.

JETS, Dimitrijevic & Micevski, 1990.

Boris Kolka (SAFCH #1214), Vocarska 39, 41000 Zagreb, Croatia.

Notes to the Drawings:

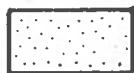
- This section is a darker shade of aluminum.
- Camouflaged aircraft (113 and 029) have a silver line dividing the radome from the fuselage.
- All stars have a yellow border.
- Camouflage scheme for aircraft No. 113.
- Badge is a black and white bird on a white disk with black outline.
- Although most of the Yugoslav Sabre Dogs were kept in excellent condition, some did show signs of "weathering". This was most visible on radomes (both painted and unpainted) and, sometimes, on the antiglare panels. Aircraft No. 034 is one of those with the black paint well worn off.



SEA GREY MEDIUM
(FS 36187)



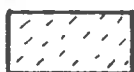
BLACK



OLIVE
(FS 34102)



INSIGNIA BLUE
(NO FS No., ~ HUMBROL 25)



PRU. BLUE
(FS 35164)



SCARLET RED
(NO FS No., ~HUMBROL 60)



OLIVE DRAB
(FS 34087)



ALUMINIUM



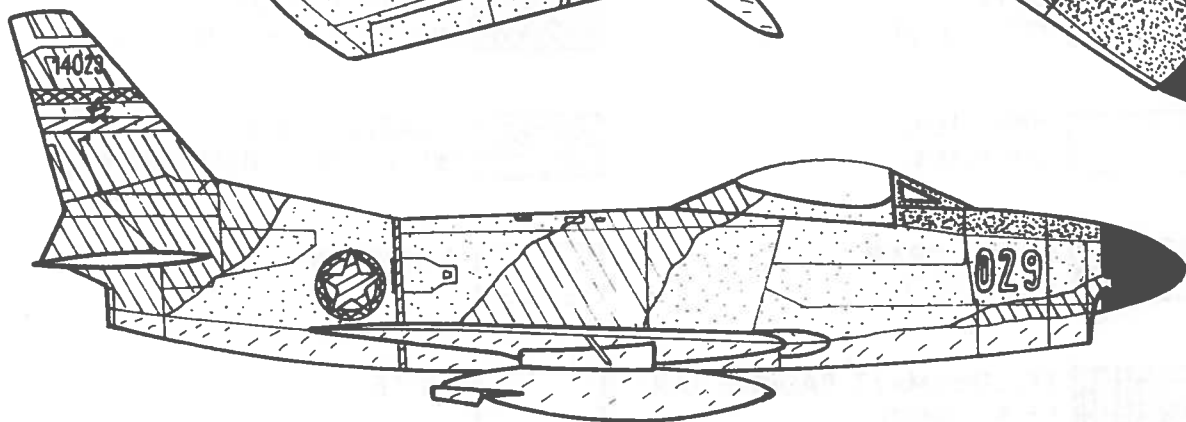
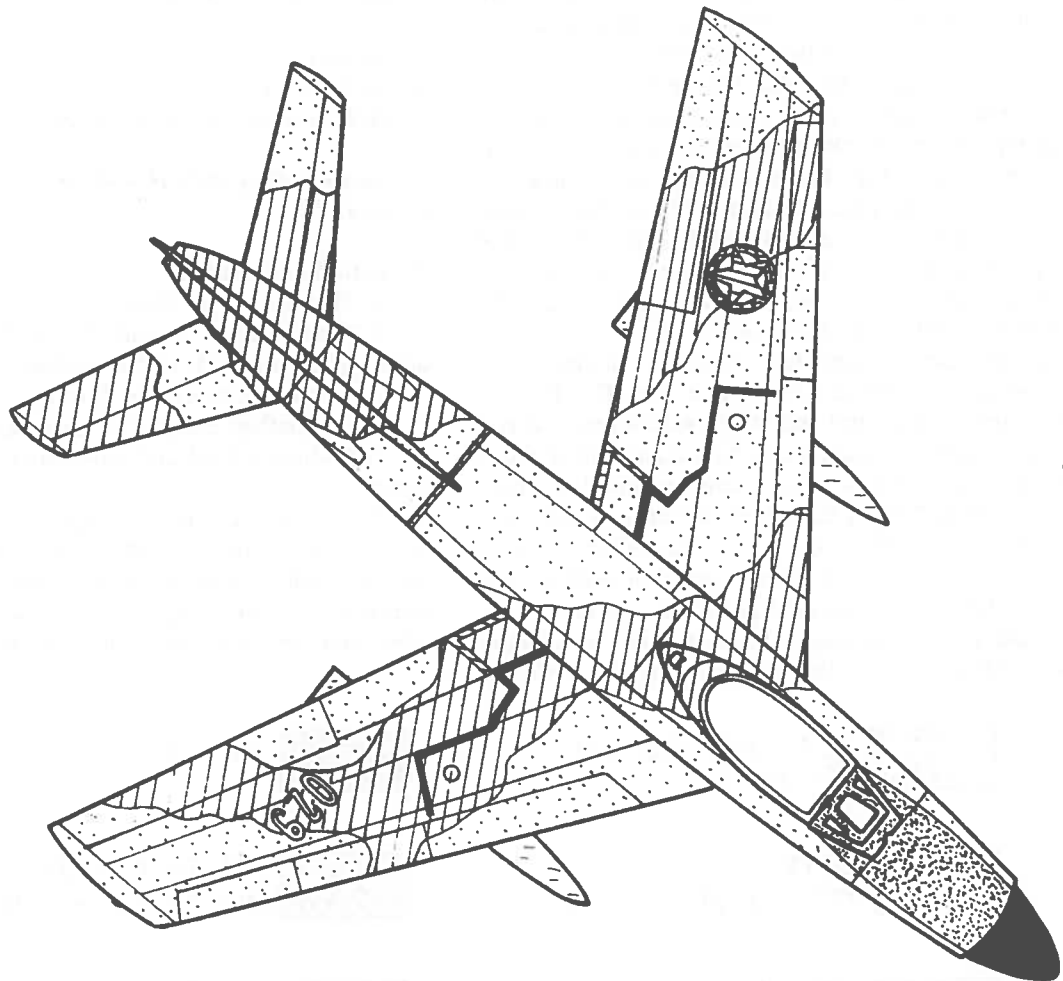
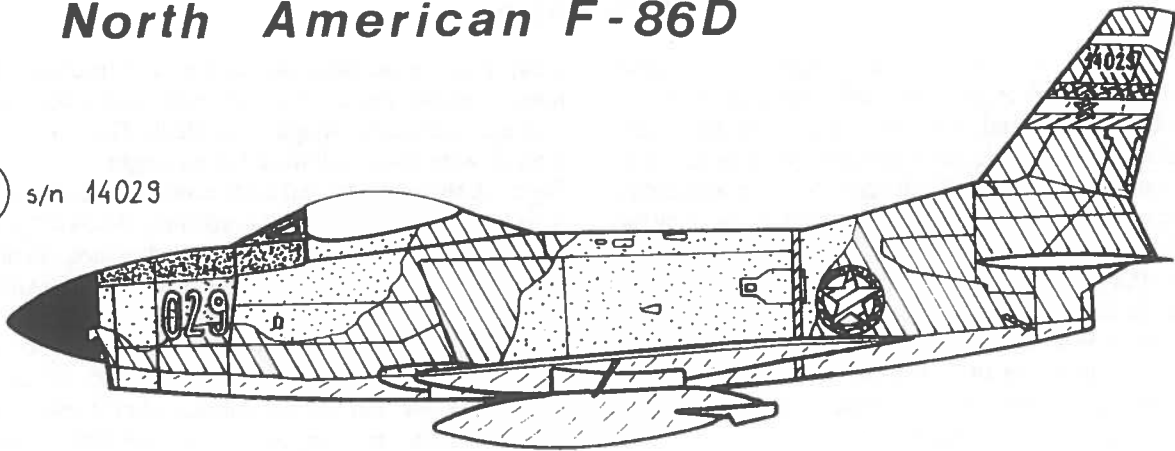
YELLOW/MATT RADOME TAN
(~ FS 33613)



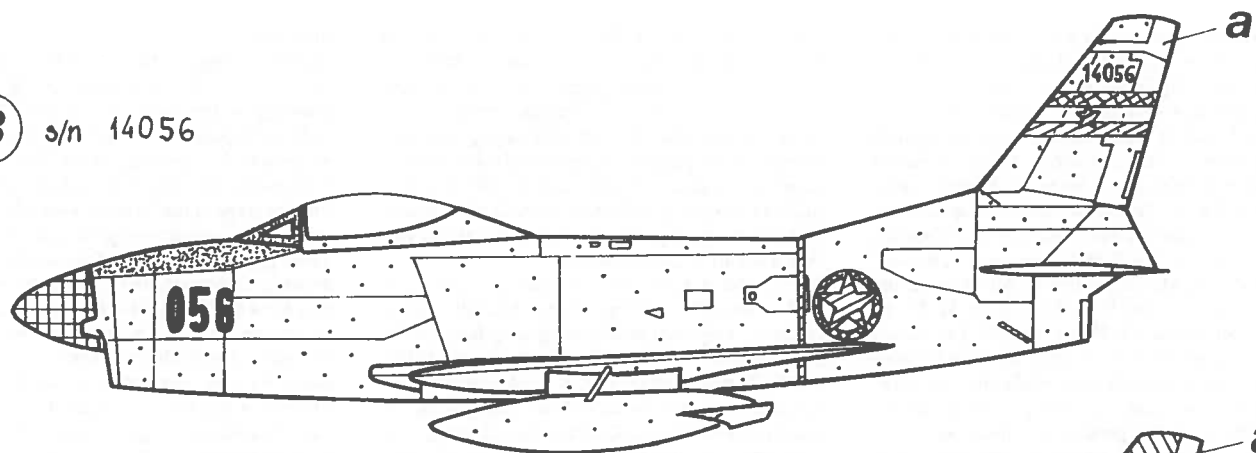
WHITE

North American F-86D

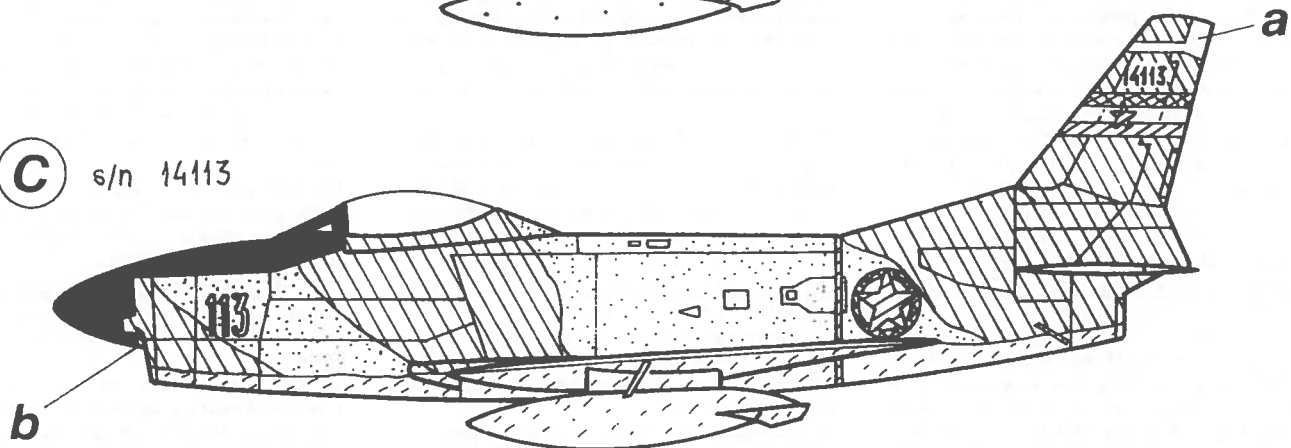
A s/n 14029



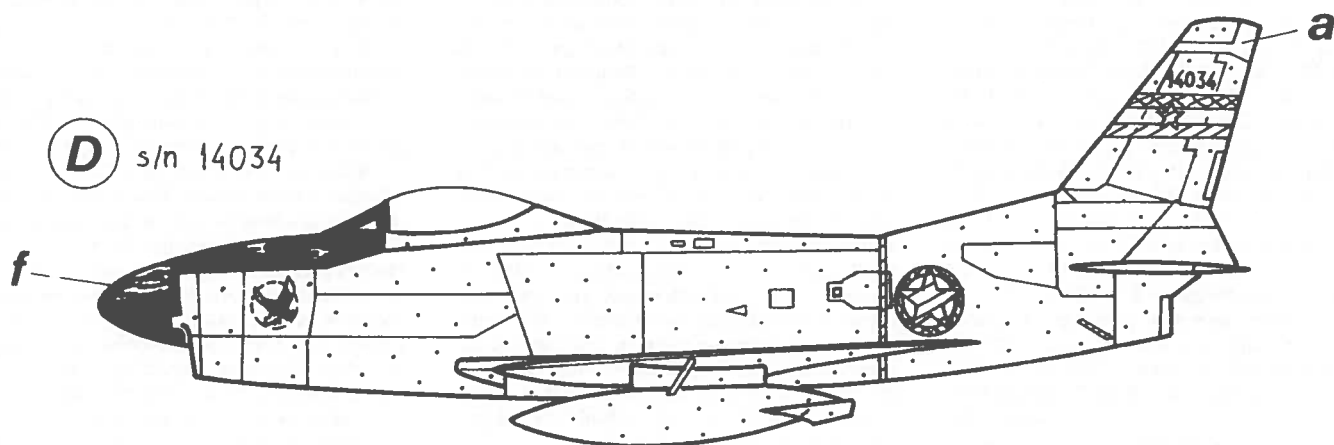
(B) s/n 14056



(C) s/n 14113



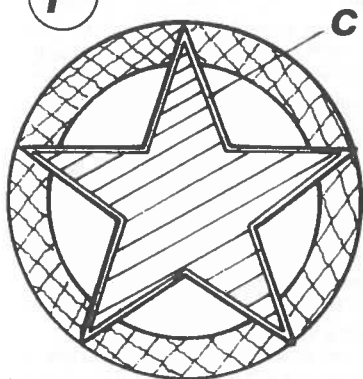
(D) s/n 14034



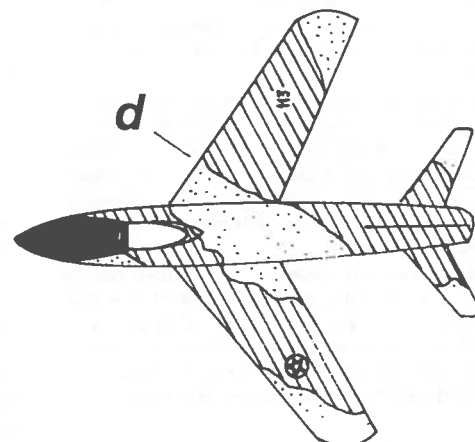
(E)



(F)



75 cm



HORRIDO: Legicsaták a Keleti Fronton, Denes Bernad, Peter Mujzer, and Janos Hangya. 136 pages, 16.5 cm by 24 cm. Handbound.

This is the first of what will probably become a flood of books on a subject that was only recently "non history" in Eastern Europe, the participation of Eastern European air forces in the war against the Soviet Union. This book consists of seven chapters: (1) The Finnish Air Force, (2) The Croatian Air Legion, (3) The Royal Hungarian "Honved" Air Force, (4) The Royal Italian Air Force in the Soviet Union, (5) The Royal Rumanian Air Force, (6) The Slovakian Air Force, and (7) The volunteers of Luftwaffe and others. Each chapter consists of a text in Hungarian, several photos per page with English captions, and a two-page English summary. Some of the photos are small and their reproduction is only of average quality, but they all show interesting aircraft in exotic markings.

The Finnish AF (1941-44) is covered in 16 pages with 34 photos; there is not much new here for anyone who has been buying everything that has been published in Finland. The Croatian AF (1941-45) is covered in 16 pages with 20 photos (Dewoitine D.27, Blenheim, Bf-109, Do-17Z, & Breguet 19). The Hungarian AF is covered in 28 pages with 65 photos (He-70K, CR-42, Ca-135, Ju-86, He-46, WM-21 Solym, SM-79, Re-2000, He-111P, Do-215B, Fi-156, FW-189, Bf-109, Ju-88, Fiat G-12, Ju-87D). The Italian AF (1941-43) is covered in 6 pages with 11 photos (MC-200, BR-20, MC-202, SM-81, Z-1007). The Romanian AF is covered in 28 pages with 61 photos (P-11f, S-59, FN-305, Potez 25, S-79B, MB-210, IAR-80, P-23 Karas, P-37 Los, IAR-39, Hurricane, Potez 633, He-111H, Potez 65, Fleet 10G, Blenheim, Ki-35, Czapla, RWD-12S, He-112B, Bf-109, Monospar ST-25, Do-17M, IAR-37, Z-501, Fi-156, He-114C, IAR-38, FW-58, Hs-129B, Me-108B, Ju-88, Ju-52, Ju-87D, Ki-35D). The Slovak AF (1941-44) is covered in 20 pages with 40 photos (S-328, Benes Be-555, B-534, B-34, SB-3, B-71 (SB-2), Praga E-39, Ki-35D, SM-84, Bf-109, He-111H, Fi-156, FW-189, FW-58, Ju-87D, Aero A-100, Go-145A). Miscellaneous air forces are covered in 14 pages including 17 photos (Spanish Bf-109, Estonian Fokker C.V, and Bulgarian B.534 & Bf-109).

There are 5 very nice color paintings (Hungarian Re-2000, Finnish Blenheim, Croatian MS-406, Romanian IAR-80, & Slovak B-534), 8 color side-view drawings (Hungarian CR-42, Romanian P-24, Slovak Bf-109, Bulgarian D.520, Romanian Hs-129, Finnish Do-17Z, Italian Ca-311, & Hungarian Me-210), and 4 color photos (Hungarian Bf-109, Romanian IAR-80, Italian MC.200, & Bulgarian Me-108).

The photo captioning is outstandingly informative, e.g. "Lt. Cvitan Galic, the top-scoring Croatian fighter pilot is getting into his 'Gustav'. Taman airfield, 6 May 1943. Up to that time he was credited with 33 'kills'." So far, I've caught only one blooper: a LWS Czapla in Romanian markings is mis-identified as a RWD-13.

This is an excellent book that can be highly recommended to all SAFO readers interested in WWII. Luckily, one of the authors, Peter Mujzer, is a SAFCH member and he had promised to send a large number of these books to be sold through the SAFCH Sales Service and a very fair price.

Su-22, 4+ Publications. This is the second aircraft monograph by the Czechoslovakian 4+ Publications. It covers the Sukhoi Su-22M-4 and Su-22UM-3K which are the latest single seat Fitter K

and the two *seater Fitter G. It is identical in format to their earlier MiG-21 issue: 52 softbound 8.3" x 11.7" heavy glossy pages. The front and rear covers are full color photographs. Inside are 16 more pages of color photographs, 14 pages of black & white photographs, 11 pages of drawings and 8 pages of English and Czechoslovakian text. The quality of printing and photo reproduction is very high, in every way on par with publications like Aerofax and Squadron Signal.

The English translation (including all captions) is well written. The text begins with a brief discussion of the development of the swing-wing family from the Su-7 and describes all variants of the Su-17/20/22. The bulk of the text is a detailed technical description of the Su-22M-4 and its systems. A history of the Su-22 in Czech service is also given. Supplementing the color photographs is a written color description, using FS numbers, of every conceivable external and internal surface, including stores.

The four pages of highly detailed 1/72 scale drawings are certain to be the "meat and potatoes" for most modelers. Prepared by engineer and L+K contributor (and SAFCH member) M. Ovcakic, they are the most accurate of these aircraft to date. It is interesting to note the aircraft drawn are identified not only by variant, but also by particular production run. Two more pages are devoted to scale drawings of external stores and a loading diagram. Additional drawings include camouflage patterns, airframe cut-away, ejection seat and instrument panel details.

The photographic coverage is exemplary. There are no blurry postage stamp size shots taken from 100 meters away. The close-ups are "in your face". The cockpits are covered, in color, 360 degrees, with the seats in and out. There are photos of the wheels wells and landing gear (including one of the inner side of the oleo, with the wheel off!) and inside every hatch and panel as well. There's even photos of the engine ducting inside the airframe. A photo session with this kind of military co-operation would be impressive even in the West.

It should be pointed out that this book strives for depth, rather than breadth. It only covers the two variants and only in Czech service. However, these areas are covered to the last millimeter. Fortunately, these are common variants, and most of the color information is applicable to Fitters exported to other countries as well. This book is highly recommended for anyone interested in the subject, and a must for modelers of the Fitter.

The price is unknown, but like their MiG-21 book, it should retail for around \$13.4+ is just beginning to penetrate the large commercial distribution channels, so you may need to hunt a bit for it. White Wolf Books (528 Dunkle School Rd, Halifax, PA 17032) carries the line and 4+ has an agent in the US (4+ Publications, 855 Bebout Road, Venetia, PA 15367). The next issue is scheduled to be the Mi-24.

Greg Reynolds (SAFCH #105), PO Box 370841, Montara, CA 94037.

MESSERSCHMITT Bf-109E-F, Makettstudio, No. 1. 40 pages; 20.5 cm by 29 cm. Softbound.

MESSERSCHMITT Bf-109G-K, Makettstudio No. 2. 40 pages; 20.5 cm by 29 cm. Softbound.

This is the first of what is apparently a series of books for the modeler. The text is in Hungarian (a language that makes Polish look easy), but, since the majority of these books consists of drawings and tables, *the language barrier should be no

problem.

Book No.1 begins with a large fold-out cutaway of the 'E', followed by a 3-view drawing, 18 side-view drawings of the numerous variants from 'E-1 to 'E-9, and 9 pages of sketches of internal and external details. The coverage of the 'E terminates with 11 side-view drawings of 'Es in Luftwaffe markings. The coverage of the 'G starts with a 3-view drawing and 12 side-view drawings of variants 'F-0 to 'F-6. Three pages of sketches is followed by 11 side-view drawing of aircraft, all in Luftwaffe markings except for a Hungarian 'F-4 carrying Luftwaffe crosses on the fuselage and wings but with the whole tail unit in Hungarian tricolors

Book No. 2 is very similar in content. The 'G is covered with a 3-view drawing, 19 side-view drawings of variants, 7 pages of sketches, and 10 side-view drawings, 7 of which are of aircraft in Hungarian markings. The 'H is covered with one 3-view drawing. Coverage of the 'K includes a 3-view drawing, 3 side-view drawings of variants, and 3 side-view drawings of aircraft in Luftwaffe markings.

The quality of the drawings in both of these books is very good and should satisfy the desires of any modeler wanting to accuratize and detail any kit of the Bf-109E through K in any scale. Since these books will see extensive use, it is good to see that they are wire-bound (so they will stay open at any page) and they are sturdily bound in tough plastic covers.

[Editor's note: On the cover of book No. 1 is a drawings of what appears to be a 'E in the markings of the illusive Russian Army of Liberation. Back in SAFO #26, we published an article by Kim Margosein which included a drawings of an 'E is the markings of this unit. At the time, the author remarked that he was not sure of the authenticity of the drawings and he even left open the possibility that somebody might be pulling his leg. The drawing from Hungary is identical to Kim's drawings (including the "POA" on the tail) except for the addition of a yellow band around the rear fuselage, under the nose, and on the wing tips. Perhaps one of our readers could provide a translation to caption to this painting: "Bf 109E-3, Repult 1944-ben a keleti fronton, a Felszabadito Orosz Hadserg kotelekeben. A gep folulrol feketes, III. soterzold, az oldala vilagoskek alapon feketeszolddel foltozott, alul vilagoskek. A legcsavarkup es az orr felso resze fekete. Az orr also resze es a torzsos levo sav sarga. A gep torzsos es a szarnyakon alul, felul feher kereszt, kek szegellyel. A POA felirat feher." If anyone has information on the aircraft used by the POA, I'm sure that Kim would like to hear from him: Kim Margosein, 2813 E. 192 St., Lansing, IL 60438.]

MILITARY AIRCRAFT IN THE CHINESE CIVIL WAR & THE AIRCRAFTS (sic) OF CHINESE AIR FORCE IN THE SINO-JAPAN WAR.

Oh boy! Who'da thought! Two books from Taiwan covering aircraft from one of the most volatile periods in modern times and also involving small air forces (if China, with more than 20% of the earth's population, can be called small). Both books include color profiles, small 3-view drawings, and a small b&w photo of each aircraft mentioned. The text is mostly in Chinese, with limited English translations - usually a few paragraphs covering basic and limited general history of each aircraft. However, these do include information on how the

aircraft were procured and used by the air forces involved. For example, it is reported that ten He-111A-0 were originally built for service evaluation by the Luftwaffe and then sold to China where they were used against the Japanese until the last one was mistakenly shot down by a Chinese student pilot!

CHINESE CIVIL WAR has 162 pages covering 46 different US-, Japanese-, and British-built aircraft used by both sides during the revolution following WWII. Included are Ki-43, Ki-30, Ki-46, and Ki-45 in never-before-seen (by me) national markings consisting of a five-pointed red star on a red-bordered white disk; within the star is another white disk with a Chinese character in red (see sketch).

SINO-JAPAN WAR has 155 pages covering 62 aircraft built by the US, Soviet Union, Germany, Italy, France, Great Britain, China, and Japan.

Both book measure 8.5 in. by 6 in. and they are obtainable from: Aviation Usk, 602 Front St., Box 97, Usk, WA 99180. The price is \$19.95 each plus \$3.50 postage and handling each.

Rod Thorsen (SAFCH #967), 2405 1/2 S. Eye St., Bakersfield, CA 93304.

CALIFORNIA HIGH: Warbirds of the West Coast (Wings #3), Michael O'Leary. 96 pages, 7.5 in. by 10 in.; 100 color photos. Specialty Press, 123 North Second Street, Stillwater, MN 55082. Soft bound. \$17.25.

The third offering in Specialty Press' Wings series is probably their best yet. The format, consisting of minimal text and lots of color photos, is unchanged, but the subject matter offer a variety of color schemes unavailable in their other volumes. The quality of the reproduction of the color photos is, as usual with this series, outstanding, so I will limit this review to a listing for some of the more unusual aircraft: a CASA HA-1112 Buchon in Luftwaffe markings, another in Condor Legion markings, a Soko Galeb in Zambian AF markings (which the caption fails to mention), and a PZL Wilga in Polish AF markings (the caption states these markings are "inaccurate" indicating that the Wilga did not see PAF service, which is incorrect). In between these photos are lots of beautiful photos of Mustangs, Thunderbolts, Spitfires, Flying Fortresses, Liberators, Mitchells, Warhawks, Skyraiders, Trojans, Lightnings, Trackers, and many more. A good book if you like beautiful photos of colorful aircraft. And, who doesn't?

F-111 AARDVARK (Wings #4), Hans Halberstadt. 96 pages, 7.5 in. by 10 in.; 100 color photos. Specialty Press, 123 North Second Street, Stillwater, MN 55082. Soft bound. \$17.25.

While not of small-air-force interest, this book will be of interest to all SAFO readers who are also interested in "blow torches" and, especially, to those who are lovers of Aardvarks. As is true for all books in the "Wings" series, this is not a history of the aircraft, but a "snap-shot" of aircraft in service at a particular time and in a few locations. This book consists mainly of photo of Aardvarks operating out of Cannon AFB, New Mexico, Mountain Home AFB, Idaho, and Pease AFB, New Hampshire, during 1991. The text, which include a nice chapter on "How to Fly the F-11", is minimal, but very readable.

This is, first and foremost, a photo book. The potential buyer should be warned that only a few photos show the entire aircraft, but these do include aircraft in brown/green camouflage, blue and grey EF-111A, and a new wraparound slate grey

scheme. The great majority of photos show interior and exterior detail. This outstanding coverage includes the cockpit interior (with the only pin-up art found on F-111s), armament, and exterior fittings. (If you've been searching for a view of the F-111 fuel dump vent, you'll find it here.)

I find the full-aircraft photos rather muddy and not of much use in choosing a scheme for a F-111 model. However, the detail shots are of excellent quality and should excite the modeler looking to super-detail a F-111 kit. In common with the other volumes in the "Wings" series, the quality of production is excellent with the photos well-printed on glossy paper, a good binding, and a serviceable soft cover. Copies are available from book stores, hobby shops, or direct from the publisher (call toll-free 1-800-888-9653). In the latter case, add \$3.95 for shipping and handling.

SCALE AIRCRAFT DOCUMENTATION AND RESOURCE GUIDE, 132 pages, 8 in. by 11 in. Softbound. Scale Model Research, 2334 Ticonderoga Way, Costa Mesa, CA 92626. \$5.00 (overseas \$10.00 to cover air post).

The 1993 catalog for Scale Model Research lists over 4000 photo packs and 22,000 3-view drawings. "The FOTO PAAK (studies) are full-color 3.5" by 5" pictures taken with the modeler in mind, to show details like paint scheme, markings, instruments, landing gear, etc." "The 3-view drawings are either KOKU-FAN drawings, or copies of drawings gleaned from modeling and/or full-size aircraft magazines and other sources." "For the first time Scale Model research is adding scale related articles to the Catalog/Resource Guide with articles such as preparing a documentation package, kit manufacturing processes, how to shoot your own documentation photos, and others."

While designed mainly for the flying-scale-model crowd, the photos and 3-view drawings listed in this catalog should be of interest also to the static scale builder. The FOTO-PAAKS each contain from 1 to 134 color photos, "usually 2 to 8 are walk around shots with the balance of prints concentrating on details (such as instruments, gear, markings, tail wheel, etc.)."

Let's say that you want to convert the vacuform kits of the Wilga 3P back to a Wilga 2P. You go to the catalog and find, "PZL 104 Wilga 2P - White w/red trim. N7131G. W/gear, opposed engine, surface detail, dim instruments & interior. 10 photos for \$13.00. Under plans you find: "Incredible Polish 11" X 17" drawings, showing gear, surface detail, interior, etc. 5 pages" (1/20-scale) for \$17.00. Of course, for the older a/c you want find a FOTO PAAK, but you have a good chance of finding plans, with the 1/72-scale drawings going for a reasonable \$3.00 to \$5.00. The list of 3-view drawings of Schneider Cup racers is particularly exciting.

If you're tired of searching for scale drawings and photo documentation, the \$5.00 spent on this catalog will be well spent. Just glancing through it will give you lots of ideas for conversions and scratch-building projects.

BUSH TO BOARDROOM, A Personal View of Five Decades of Aviation, Duncan D. McLaren. 320 pages 6.75 inches by 9.75 inches, 47 black and white photographs, map, and index. Watson & Dwyer Publishing, 232 Academy Rd., Winnipeg, Canada R3M 0E7. \$17.00 softcover, \$35.00 hard cover. US payment in US funds. Postage and handling included.

"For five decades, beginning in 1933, Duncan McLaren has been dedicated to planes. He serviced them, flew them, tested them and later in his career, he leased, traded and bought them. Now, from the resources of his life-long experience, he is writing, again about planes.

"Duncan McLaren flew the Canadian Arctic, the uncharted Labrador and the bush country of the northern Canadian provinces for the Hudson's Bay Company. In the years of World War II he was a civilian pilot doing the priority work of testing military aircraft. His story includes the development of Pacific Western Airlines from its beginnings as a bush line, its corporate acquisitions and the part it played in the construction of the Distant Early Warning Line in the 1950s. In 1962 his aviation interests expanded with a move to the United States and the worldwide leasing of transport aircraft

"Author McLaren tells a remarkable story with humor, and in meticulous detail that will satisfy the most demanding aviation, arctic and business specialist."

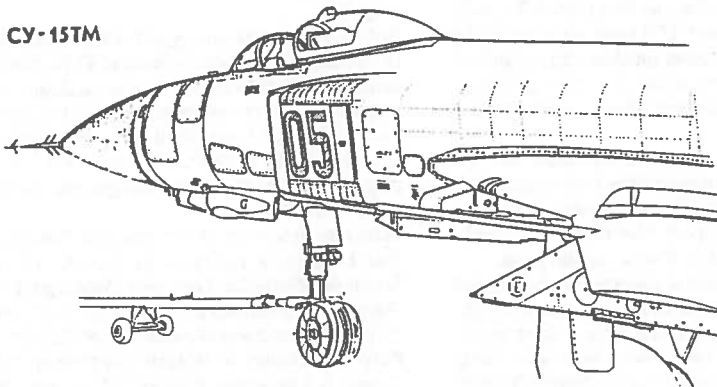
FLAGON: JUMBO KILLER, 20 pages. 8.5 in. by 12 in. Xerox. \$3.00.

Twenty pages of sketches of details of the Su-15, the a/c infamous for shooting down Korean Air Lines Flight 007. Included are 1/72-scale drawings of the Su-15TM. A perfect complement to the 1/72-scale vacuform kit of the SU-15. Both the book and the kit are available from the SAFCH Sales Service.

VULTEE AIRCRAFT 1932-1947, Jonathan Thompson. 132 pages, 8.5 in. by 11 in., 236 photos, 23 scale drawings. Softbound. \$29.95.

This book arrived too late to allow a comprehensive review in this issue. One will appear in the April issue of SAFO. However, anyone who knows the excellent work done by SAFCH-member Jonathan Thompson and who has an interest in Vultee's attractive a/c will not want to wait. Order from Jonathan at, 1331 South Birch St., Santa Ana, CA 92707, USA.

CY-15TM



ZLINEK. [Editor's note: Some of you may be aware of the excellent magazine, ZLINEK, that came from Czechoslovakia a few years ago and then disappeared. I've recently received a letter from their editor and I would like to share this with you: "Zlinek was the name of a group of young modelers that I started about 17 years ago in our town of Zlin. Zlinek means 'little Zlin'. In 1989, I started to print a simple bulletin for plastic modelers called, naturally, ZLINEK. After two years of publishing, I was very discouraged. The inflationary spiral, the non-existence of private printing plants, difficulties in packing, distribution, and the general economic situation were major problems. The initial ZLINEK project was a financial loss for me, so I stopped publishing in 1990.

"However, my love of aviation and working with young people remained. This year (1992), I quite my job as a TV camera man and with money borrowed from my parents and friends, and with a big loan, I published a single, greatly improved, version of ZLINEK. Our goal is to earn enough money to start the regular publication of a magazine in the tradition of ZLINEK.

"The price per copy for this special issue of ZLINEK is US \$1.80 plus US \$1.70 for postage in Europe or US \$3.00 for postage to the USA. Since it is possible to send two issues of ZLINEK without increasing the postal cost, you can save a little money by getting together with a friend to order two copies at a time.

"I've seen your magazine in Czechoslovakia. It is a very good work and it is pleasant to see that these are interested in the aviation of small countries, such as mine, in such a big land as America." Jaromir Stepan, P.S. 8, 763 14 Zlin 12, Czechoslovakia.]

ZLINEK 92. This special issue, with the text entirely in English, consists of 32 pages on high-quality, glossy paper with color covers, color photos, color drawings, and superb

scale drawings. The feature articles are on the F-16 and Su-15. "F-15 Fighting Falcon" runs for 8 pages and includes 2 pages of text describing the various variants and use by the USAF and other air forces; 3 color photos of exterior details, 2 pages of color drawings - port, starboard, & plan views of 3 a/s (USAAF, Dutch, & Israeli); 4 pages of 1/72-scale drawings; and hints of painting a model of the F-16. "Sukhoi Su-15TM Flagon" runs 12 pages and includes one color & 5 b&w photos of details; sketches of cockpit, landing gear, miscellaneous surface detail, & the ejection seat; color 4-view drawing of a Su-15TM at Astrakhan in May 1992; 4 side-view drawings, 4 pages of 1/72-scale drawings; and a brief description on modeling the Pioneer kit which is major surgery. A 3-page article covers the aviation career of "Lubomir Ulehla" with 5 b&w photos of a/c he flew (Hawk 75, A-24, P-40F, & P-46D) and 1/72-scale drawing of his P-47D '228363'. This issue finishes with a couple of pages on local model show and color photos of Czech Mi-8 and Mi-24 with 'shark-mouth' decorations.

The outstanding features of ZLINEK are the beautiful color drawings and the outstandingly excellent scale drawings. Jaromir deserves our encouragement and support. Our hobby will benefit if he can publish ZLINEK on a regular basis.

ZLINEK 92 is an excellent magazine and, at a price of \$1.80 plus postage, it is a downright steal (although I'm afraid a lot of stealing is done by the postal service). You can order your copy directly from Jaromir, but if you're not in a hurry, I'll order a batch for sale through the SAFO Sales Service.

The cost from the Sales Service will be \$6.00. (If the cost of postage from Czechoslovakia is less than I expect, I'll send the extra money to ZLINEK.)

SKRZYDLA MINIATURZE. The first six issues of this relatively new, and very interesting, modeling magazine from Poland are on hand for review. These issues are printed on a good grade of paper with glossy covers. The text is in Polish, the reproduction of the photographs is excellent, and the drawings, usually in several different scales, are outstanding. Rather than the hodge podge of articles found in most modeling magazines, including the SAFO, the editors of SwM have chosen to focus on a single a/c type in each issue.

1/91 (28 pages) The "Piper Cub - L-4 Grasshopper" is covered with 13 photos, 10 side-view drawings (all US except for one French Army), a 4-view drawing (in both 1/48 and 1/72 scale) of a US L-4 in invasion stripes, a 3-view drawing in 1/48 scale of a Polish Cub 'SP-ALD', a 6-view, 1/72-scale drawing of the L-4, and 10 pages of drawings in 1/20 scale including construction and interior details.

2/91 (36 pages) This issue is devoted to the Yak-1M with 45 photos, ten 1/72-scale side-view drawings showing the aircraft's development from the I-26 to the "Jak-1 z silnikiem M-106 nr 2", 7 side-view drawings of the Yak-1M in Soviet markings, a 1/72-scale 5-view drawing of Yak-1M of a Polish unit, 3 pages of 1/48-scale drawings of the same aircraft, 8 pages of 1/32-scale drawings, and 3 pages on interior detail drawn in 1/20-scale.

3/91 (36 pages) The Mil Mi-14 is covered with 45 photos, a 2-page cutaway drawing, ten side-view drawings showing various variants, 4 pages of 1/72-scale drawings, 2 pages of 1/72-scale drawings showing the markings of Polish SAR Mi-14PS, and 5 side-view drawings (East Germany, Libya, Yugoslavia, USSR).

4/91 (36 pages) This issue, and the following two (92/1 & 92/2), are devoted to the Lockheed P-38 Lightning and its variants, e.g. XP-38, P-322, F-5, XP-49, and XP-58. Coverage is similar to that given in the previous issues with lots of photos and excellent drawings. [Editor's note: Missing from the drawings, but shown in two photos, is the RP-38 with a second cockpit on the port boom. Does anyone have drawings of this unusual Lightning?] Issue 92/2 is the first to break the "one aircraft per issue" rule: 4 pages cover the Salamandra, a Polish glider, with text, photos, and 1/40-scale drawings; and 2 pages cover the cockpit interior of the Bristol 138A.

Skrzydla Miniaturze is a welcome addition to the world's aviation magazines. All aviation enthusiasts, especially those who cherish fine scale drawings, owe it to themselves to see this excellent magazine.

SwM is listed in the catalog of Pelta: Military Books from Poland. The price is listed at \$2.99 each. This catalog exclaims "All books in this catalogue can be obtained from our branch in England: Books International, 69B Lynchford Rd., Farnborough, Hampshire, GU14 6EJ" and "Prices do not include postage. Packing & postage charges you will find at Pro-Forma Invoice."

Pelta also lists many of the excellent Polish books that have been reviewed in SAFO: "Pierwsze Samoloty Mysliwskie Lotnictwa Polskiego" \$11.99, "Samoloty Mysliwskie Wrzesnia 1939" \$9.99, "Samoloty Bombowe Wrzesnia 1939" \$10.99, "1939 Polskie Eskadry w Wojnie Obronnej" \$7.99, "Barwa w Lotnictwie Polskim" \$1.99 each, "Klub 1/72" \$1.99 each, "Fanatyk Plastik" \$2.39 each,

"IAR 80/81" \$5.99, "Samolot Bombowy PZL P-37 Los" \$10.99, and "Lotnictwo Polskie w Wojnie z Rosja Sowiecka" (Polish Air Force at War with Soviet Russia 1919-1920) \$5.95.

AERO ESPACIO (68 pages) This magazine, from Argentina, is printed on high quality, glossy paper and includes many color photos. The issue at hand, 9/10 92, has a 33-page report on Farnborough '92, an article "La IXa Brigada Aerea: Eficiencia en Silencio" with 5 pages including 5 color photos (Argentine Twin Otter, F-27 Troopship, and IA-58 Pucara) and 2 b&w photos (Troopship and Albatros); "Primeros Egresados de la EMA: 50 Anos Despues" 2 pages with photo of Argentine Kaydet; "Magyar Honvedseg Repulo Cspatai" 2 pages with color photos of MiG-21 & Mi-8 and b&w photo of MiG-23 all in the new national insignia of the Hungarian AF; "Lineas Aereas Paraguayas" one page with two color photos (Boeing 707) and fleet list; and color photos of Argentine Navy Kaydet, Bolivian T-33s, & Sandinista Mi-17.

AERO ESPACIO is typical of dozen of other magazines on general aviation with the important difference that it has a definite Latin-American slant. Many of the article are written by Jorge F. Nunez Padin, an SAFCH member, who provided the review copy. Price per issue is US \$6.50, but I can't find an address.

ALI ANTICHE, published by the Gruppo Amici Velivoli Storici (GAVS), is devoted to promoting aircraft preservation in Italy. The issue at hand, 7-9 1992, is well printed on high quality, glossy paper with many photos. The only color is on the cover which shows the Bleriot IX-2 recently restored in Rome. An article titled, "How to Invent a Dogfight", "dispels the long-standing myth of a dogfight between US mercenary Capt. Derek Dickerson and Lt. Bruno Mussolini, son of the Italian dictator. According to Dickerson, the match took place on 28 Sept 1937. Mussolini had arrived in Spain the day before, being posted to a bomber unit. His flight log, found in the Archivio Centrale di Stato records no flights on the 28th, and no single-engine aircraft flown while in Spain." (I didn't translate the Italian. There's a 2-page English translation in each issue.)

Anyone interested in ALI ANTICHE and/or GAVS should contact the president and editor, Gregory Alegi, at: Largo Lucio Apuleio 11, 00136 Roma, Italy.

HRVATSKI ZRAKOPLOVAC. This small, but well produced, magazine provides news about the Croatian AF. Issue #1 (dated "Travanj 1992") has a color photo of the now well-known Croatian MiG-21 '101' on the cover. Inside there's an article on Croatia anti-aircraft forces, but the remaining articles, including a modeling article, are on non-Croatian subjects. Issue #2 ("Svibanj 1992") has 6 color photos of a Croatian Mi-8 with enough views for an accurate picture of the markings. An article on Croatian anti-aircraft defenses includes a table listing the date, aircraft type, and location of Yugoslav aircraft destroyed over Croatia. This list has over 100 entries for the period between 3/9/91 and 31/12/91. Aircraft listed include MiG-29, MiG-21, Orao, Jastreb, Galeb, Mi-8, and Gazela. The remaining articles are on non-Croatian subjects. Probably the only way you will be able to get a copy of this magazine is if you have a pen pal in Croatia.

Number 1, Spring 1992 (18 pages) "Chetverikov SPL" 3 pages on scratch building this little submarine-borne amphibian including 1/72-scale drawings reprinted from the Russian magazine Modelist Konstruktor. "Fairrey Swordfish" one page with 3 side-view drawings reprinted from Scale Aircraft Modelling. "Kawanishi E15K1 Shiden" 1 page with 3 side-view drawings reprinted from Scale Aircraft Modelling.

Number 2, Fall 1992 (12 pages) "Aichi M6A1 Seiran" 4 pages including history, kit review, and 1/100-scale 3-view drawing. "Swedish Sk 15C" 2 pages with one photo and side-view drawing of Klemm Kl 35 on floats. "Hybrid Hydravion - A Glenn Floatplane" 2 pages including 3-view drawings of Martin Maryland with Vichy/Luftwaffe markings. "Seaplane Survivors" one-page list of seaplanes preserved in USA museums.

The Seaplane SIG is an exciting project that is highly recommended for anyone interested in things that fly off the water.

[illegible]

Other kits available from Atelier Noix are the Bristol Scout (4500 Yen) and Sopwith Tabloid (3800 Yen). Future releases of "Fabric Time Specials" are the Thomas-Morse S-4C, Nieuport 10, Nieuport 11, Roland D.II, Phoenix D.I, Hansa-Brandenburg D.I, Halberstadt D.II/III, Aviatik (Berg) D.I. and

At first the high price, DM 55 (approximately US\$ 33.00), but you get a lot more aircraft than, for example, in the Pegasus kit of the Blohm & Voss Bv-155 for approximately the same cost. Huma's kit of the Dornier Wal is unreservedly recommended to all SAFO readers. If there were such a thing as "The Kit of the Year", the Huma Wal would be my recommendation for 1992.

All control surfaces are molded separately and it has taken me a lot of work to get these to look right. (I sure wish the manufacturers wouldn't do this.

LIPPISCH DM-1, 1/72-scale, injection-molded kit.
Huma-Modell.

Molding the wing and ailerons in one piece would save most of us a lot of work. The few modelers who want drooping ailerons are the ones who should have to do the work.) Most of the small parts are perfectly molded; even the circular direction-finding aerial is useable. The transparencies are the poorest part of the kit; they are thick with lots of flash. However, this shouldn't cause much of a problem since all the flat windows are small enough to be replaced with a liquid glazing preparation, and the cockpit and other canopies are small enough that their thickness might not be noticeable. If it is, making a vacuform replacement should be easy enough.

The instruction sheet is in Russian, but the construction diagrams are self explanatory and the color-scheme diagrams clearly show the placement of the decals. You don't even have to translate the colors for they are identified by FSS95 number and illustrated in the color art work on the box top.

Decals are provided for two color schemes: (1) 'URSS NO25' with red wings and horizontal tail, black engine cowl, silver fuselage, with cyrillic inscription "Stalinsky Marshrut" (Stalin's Route). These are the markings carried by the ANT-25 for the aborted long-range flight that ended at Vancouver, Washington, in June 1937. (2) 'URSS NO25-1' with red wings and horizontal tail and white fuselage. These are the markings carried on the final record-breaking flight. I haven't used these decals yet, but I suggest you test them before using them; there's something about the carrier film that doesn't look right.

The Russian kit of the ANT-25 is an excellent kit, but it does require quite a bit of cleaning up. The result, however, will be a unique model that will stand out on any contest or display table. [Editor's note: A small number of these kits are available from the SAFCH Sales Service.]

[Editor's note: The following letter was received

ample, the Swiss and Iraqi Venoms have at least two numbers for optional aircraft.

"Do you, or your readers, have any suggestions for markings to include with the following future releases: (a) Grumman Goose (planned US Navy & Army, Argentina, RAF, French at Dien Bien Phu, & civil); SM-55 (planned Balboa's flight and Alaskan Airlines); Eurocoupe; Stinson Skytruck; Beech Bonanza (planned Israeli & civil); Auster AOP 6/7 (planned RAF & Canadian); Auster with floats; Grumman Duck (planned USN, Alaska Air National Guard, Mexican).

"So keep up the good work and know that not only do your readers enjoy SAFO, but manufacturers do as well. At least this one in particular."

Nicholas P. Argento, Box 846, Northboro, MA 01532.

de Havilland Venom FB.4, 1/48-scale, injection-molded kit. Glencoe Models.

As must be expected for a kit of this age, a lot of work will be required to bring the finished model up to present-day standards. Molded in dark-grey plastic, the main parts are flash free and should make the basis for a good-looking model. The surface detail consists of huge, ugly rivets which will have to be removed, the gun ports are mere dimples, and the landing gear is designed for hard use rather than scale fidelity. There is no interior detail, not even a floor or seat, and you must build your own interior which will be visible through the clear and well-molded canopy. The wheel wells for the main gear are only slight indentations in the lower wing section, but these can be easily cut out and interior detailed added to the inside of the upper wing section. The nose gear, which attaches directly to the fuselage, is a big problem; some research will be needed to determine to proper configuration of the nose-wheel well.

On the other hand, the decal sheet, by Scale-

have to be removed. Decals, by Scale-Master, are excellent and provide markings for 4 civil aircraft (one US and 3 UK) and a camouflaged Israeli machine '61'.

This is a very basic kit of a very beautiful aircraft that surely deserves better treatment.

Bristol Sycamore HR.14, 1/72-scale, injection-molded kit. Glencoe Models.

While still a kit with a past, it is a generation more advanced than the kit of the Seabee. Interior detail, although spartan, is provided although the seats look ridiculous and the circles representing the instrument faces are a full-scale 6 inches in diameter. The landing gear is extremely simplified, but the rotor head does consist of 14 parts.

The Scale-Master decals are excellent and provide markings for 7 machines; 3 camouflaged RAF, 3 yellow overall RAF, and one Royal Australian Navy '853'.

The Sycamore is by far the best of the three Glencoe kits reviewed here. Any competent modeler should be able to make a very presentable model from this kit.

Glencoe Models is providing an important service by making long out-of-production kits available at a fraction of the price being asked by kit scalpers. The variety and excellence of the decals is an added bonus. These kits are recommended to the mature modeler who want to be reminded of the "good old days", to the younger modelers who would benefit from knowing what the oldsters had to put up with, to accomplished modeler who would like the challenge of making a great model from a basic kit, or to anyone who would enjoy putting a simple kit together just for the fun of it.

Review kits kindly provided by Nick Argento of Glencoe Models.

"A friend of mine is producing a 1/72-scale resin-cast kit of the Gourdou-Leseurre 32. Since this French parasol fighter was used by the Spanish Republicans in 1937, I thought that some SAFO readers might be interested. The kit is accurate and straight forward to build even for this very peculiar form of fighter. The price is 100 ff (approximately \$23.00) plus postage. All inquiries and order should be addressed to me."

Christian Hotte (SAFCH #902), 6 impasse Santos Dumont, F-44470 Carquefou, France.

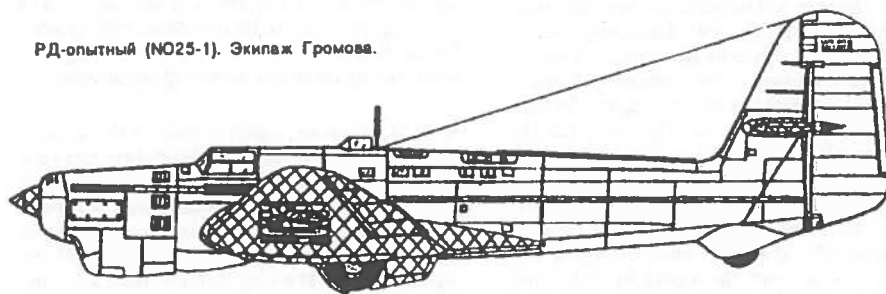
Su-15 FLAGON, 1/72-scale, vacuform kit. Russia. The thirty-something parts of this kit are molded on a single large (30 cm by 24 cm) sheet of translucent white plastic. The parts are crisply molded but the engraved panels lines will need a little cleaning up. All parts, including the undercarriage legs and wheels appear to be useable. The canopy is clear and well molded. However, the molding "pips" will be difficult to remove without spoiling the canopy; it may be necessary to vacuform a new canopy over the cleaned-up kit part.

The instruction sheet is in Russian, but the exploded construction diagrams should be sufficient for the modeler experienced in building vacuform kits. There are no decals.

The wings and fuselage match perfectly with the scale drawings in the Flagon book that is reviewed elsewhere in this issue. However, there significant differences between the shapes of horizontal tail in the kit and book.

This is probably the best kit of the Flagon available. [Editor's note: Both the kit and the book are available from the SAFCH Sales Service.]

РД-опытный (NO25-1). Экипаж Громова.



from Nick Argento, President of Glencoe Models. "I have been a reader of SAFO for years and have enjoyed every issue. I want to tell you how much SAFO has inspired Glencoe Models: (1) With all our new releases, we are including as many options in the decals as possible. Not just the major countries, but smaller nations as well. (2) On the side of each box, we are now putting the insignia of each option. For example, the export version of the Sycamore helicopter has Belgian, West German, three Australian (including 'rotor-geese' nose art, and one RAF (found an extraordinary marking and couldn't resist) so the box side has all four insignia. (3) Future releases that should appeal to us SAFO'ers are: DH Venom FB.1: RAF, Swiss, Iraqi, & New Zealand. Auster AOP V: RAF, Australian, Jordanian, Israeli, & Pakistan. Folland Gnat F.1: RAF, Finnish, & Yugoslav. Hindustan Ajeet and Gnat: Indian only but several versions and squadrons. (4) Where ever possible, we are including options for the nations as well. For ex-

ample, the Swiss and Iraqi Venoms have at least two numbers for optional aircraft. Master, is first class; large, comprehensive, and in perfect register with all markings sharply printed in vibrant, dense colors. Markings are provided for 6 aircraft: 4 camouflaged RAF machines (including one in Suez stripes), one Swiss 'J-1776', and one Venezuelan '2A34' (both in 'natural metal overall', but didn't the Venom have a wooden fuselage).

Republic RC.3 Seabee, 1/48-scale, injection-molded kit. Glencoe Models.

Another ancient kit which is even more basic than the Venom. The whole kit, fuselage, wings, propeller, wheels, etc. is molded in clear plastic. While this eliminates the problem of fitting windows into the fuselage, it does look strange in the box. Once again, there is no interior, so plan on some extensive scratch building. (I wonder if anyone will build a complete interior with engine, interior structure, etc., and leave the model unpainted.) The wing and horizontal tailplane are single surfaced with exaggerated rib detail that will

Su-25K Frogfoot: 1/72-scale decals, MPD.

For those you who have finally succeeded in uncrossing your eyes after painting that multi-colored A-10 Warthog, here's your next project. This Czech Frogfoot, which made the rounds of the European air shows in the 1992, will be a real painting challenge with its light grey base coat spotted with dark green, sand, light green, and yellow. However, you don't have to worry if you do less than an perfect job on the paint scheme; the gigantic tank-killing frog on the fin will get lots of attention.

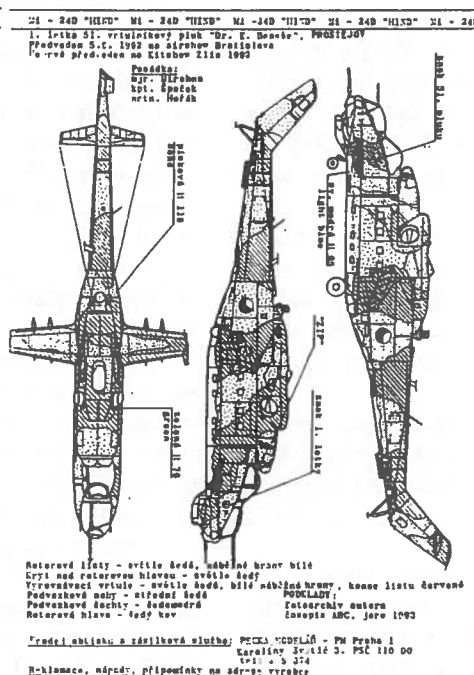
This small, 9 cm by 7 cm, sheet contains all the markings needed. The national insignia are done as separate colors to avoid registration problems which would be magnified given the small size of the roundels. Included are the aircraft number "9013" and numerous stenciling and other small markings. Pride of place, however, goes to the big green frog hammering a tank; the smirk on his face rivals that on the face of the Energizer Bunny. The quality of these decals are up to the high standards we have come to expect from MPD.

The instruction sheet is a disappointment. The three-view drawing (top and both sides) is small but probably sufficient to allow accurate lay out the color pattern and placement of the major decals. However, there is no indication of where all the small stenciling should go. It certainly would help if you had a photo of the original aircraft.

This is a great little sheet for anyone wanting to add a great big green frog to his collection and brave enough to tackle the paint job.

outer ring tends to be out of register; this is easily corrected by positioning the national insignia over a previously-applied white disk. The white-outlined, black aircraft number "0219" comes in two parts so registration is no problem. Once again, numerous stenciling is provided, but the instruction sheet give no indication of their placement.

[Editor's note: A number of each of these decals (13 Frogfeet and 7 Hinds) have been received from Czecho-Slovakia and are available from the Sales Service.]



aircraft with colorful fuselage bands and tails (822, 825, & two 820 Squadron aircraft).

Hellcat: A good sheet with lots of stenciling and five different styles of USN national markings.

P-61 Black Widow: This sheet was sold before I could write a review.

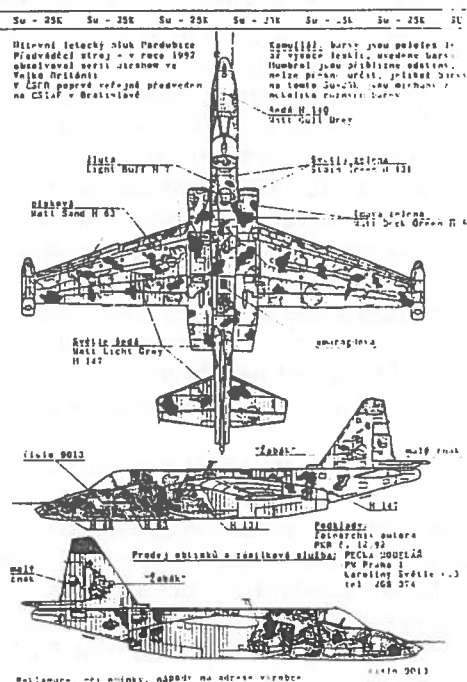
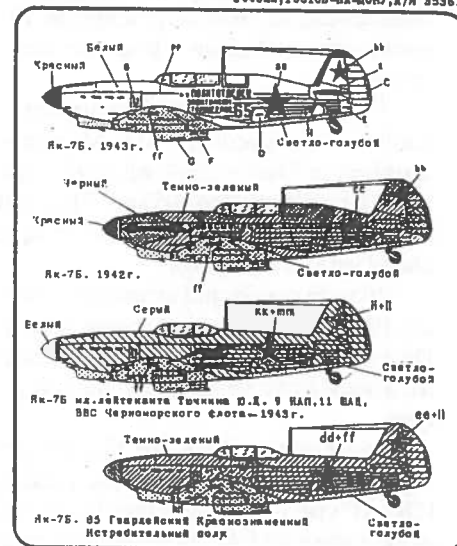
Bell UH-1 Iroquois: The 1/48-sheets contains markings for 6 machines: three US Army, one US Marines, one Japanese, and an aggressor(?) machine carrying red stars.

[Editor's Note: Only one each of these sheets are available through the Sales Service. However, if the demand is sufficient, I will try to get more.]

TRIVERS

YAK FIGHTER

344022, РОСТОВ-НА-ДОНУ, А/Я 3536



Mi-24D Hind: 1/72-scale decals, MPD.

Another small, 10 cm by 7 cm, sheet from MPD for a colorful Czech machine. Painting this Hind with its sand and green camouflage over light blue will be relaxing after doing the Frogfoot. Decals include a shark mouth, two unit markings (51 Pluk on the port side and 1 Letky on the starboard side) and the individual "Zip" on the engine intake. The national insignia is done in one piece and the white

TRAVERS: Just received from Russia are one each of a new line of decals. At hand are five 1/72-scale sheets for (1) Yak Fighters, (2) F6F Hellcat, (3) Sea Fury, (4) Swordfish, and (5) P-61 Black Widow; and a 1/48-scale sheet for the Bell UH-1 Iroquois. All these sheets measure 11 cm by 17 cm, and most include, besides national and individual markings, stenciling and instrument panels. The quality of the sheets appears to be very high; the colors are vibrant and dense, the printing very sharp so that even the smallest stenciling is readable, and the registration bang on. In cases where even the slightest registration problem would be disastrous, e.g. the red of the RAF roundel or the white surround to the red star, the possibly-offending items are printed separately. Each sheet provides markings for a number of aircraft, and, in some cases, the instruction sheet gets a little crowded.

Yak Fighters: markings for 9 aircraft consisting of 2 Yak-1, 3 Yak-1M, 2 Yak-7 (two-seaters), and 2 Yak-7 (single seaters). All markings are for Soviet aircraft and most carry complicated inscriptions. Unquestionably, this sheet is the "pick of the litter".

Sea Fury: Another interesting sheet with markings for 4 aircraft: three Royal Navy and one Royal Canadian Navy. The instruction sheet put all four schemes (including top and bottom views) on one side of the 11 cm by 17 cm sheet and the identification numbers for some of the decals are impossible to read. What a strange place to try to save money!

Swordfish: This sheet will be most welcome by the "between-the-wars" modeler since it covers four

DUTCH DECALS: The two latest decals from DUTCH DECALS should be of great interest to the modelers who fancies the small air forces, particularly the Netherlands AF and Navy. Each sheet measures 21 cm by 13.5 cm and are exceptionally well printed in perfect register with a profusion of small details. These sheets provide all the specialized markings needed for the specified aircraft, but the roundels and fin flashes will have to come from a different source, e.g. DUTCH DECALS sheet 72017 is suggested. The instruction sheet is, as usual for DUTCH DECALS, excellent. Included are beautiful side- and top-view drawings of all the aircraft, color information (FS595 when appropriate), and a list of recommended kits with any necessary conversions.

72018: RNeth Navy Grumman Avenger TBM-3E2, TBM-3W2; Fairy (sic) Firefly Mk.1, Mk.T-2, FR-4; B-25D Mitchell; Tiger Moth; Lockheed P2V-5 Neptune; Westland Wasp.

72019: RNethAF Gloster Meteor F.Mk 8 (323, 325, 326, 328 Sqn.), T.Mk 7 (323 Sqn); F-16A ('40 Year 314 Sqn); Harvard IIB; Fokker F-27 Maritime (336 Sqn).

In Europe, DUTCH DECALS are available from Luc H. Boerman, Kerkstraat 2, 2471 AP Zwammerdam, The Netherlands. They are available in the USA from Import Specialties, 3655 Sullivant Ave., Columbus, OH 43228.

SQUADRONS OF THE ISRAELI AIR FORCE

1948 - 1992

Part II : Squadrons 105 to 110

John Hayles

105 Squadron ("Scorpion Squadron" - identity not confirmed)

Role: Fighter, later Fighter-Bomber

The Cheyl Ha'Avir's second fighter unit, 105 sqn, was formed in January 1949 to act principally as an OTU for 101 sqn. Initial equipment comprised a handful of surviving Avia S-199's from 101 sqn, and a rather larger number of Spitfires. Flying commenced at Herzliya, alongside 101 sqn. By May 1949 the Avia's were withdrawn from service and only Spitfires were operated.

From 1951, the squadron strength was supplemented by a number of ex-Swedish P-51D Mustangs. Further Spitfires were acquired in March 1954, when 107 sqn was disbanded, and its aircraft transferred to 105 sqn. The Spitfires were finally retired in February 1956, after which the squadron moved to Ramat David with its Mustangs.

105 sqn conducted extensive close air support operations in the 1956 Sinai Campaign, losing several aircraft to ground fire. Despite its perceived vulnerability, the P-51 remained in service for another two years - 105 sqn being the last operator of the type.

In December 1958, the first examples of the potent Super Mystere B.2 were delivered, making 105 for a while the IDF/AF's premier interceptor fighter squadron. A further batch of ex-Armee de l'Air examples was received in 1963. Although theoretically outclassed by the time of the Six Day War, June 1967, the type flew extensive interception and fighter escort missions and 105 sqn claimed over 16 kills in air combat for 8 losses. At least two of the kills were against Syrian MiG-21's.

Postwar, the type was relegated to ground attack missions, although high fuel consumption at low level severely limited endurance. A drastic solution was developed, which involved rebuilding the Super Mystere's rear fuselage to accommodate the J52 engine used by the A-4H Skyhawk. A total of 26 aircraft were re-engined in 1969-73. Some 22 examples were available to fly attack missions in the Yom Kippur War, during the course of which 6 aircraft were lost.

The Super Mystere's were finally retired in March 1975, in favour of the F-4E Phantom. The squadron probably also received two RF-4E's from the batch delivered between March and May 1977. The Phantoms will in due course be upgraded to Kurnass 2000 standard.

The aircraft used by 105 sqn include:-

Type	Qty	Service	Base	Badge	Example Serials
Avia S-199	4-5	Jan 1949 - May 1949	Herzliya		
Spitfire LF10E	15+	Jan 1949 - Feb 1956	Herzliya	16, 17	03
P-51D Mustang	20	1951 - 1957	Herzliya/ Ramat David	16, 17	141,
Super Mystere B.2	24	Dec 1958 - Mar 1975	Hatzor	18	18, 25, 70, 325, 705, 821
F-4E	22	Mar 1975 - Present	Hatzor	19, 20	216
RF-4E	2	Mar 1977 - Present	Hatzor	19, 20	

106 Squadron (No nickname known)

Role: Long Range/VIP Transport, Aerial Tanker

The origins of 106 squadron can be found in the formation of the Panamanian airline LAPSA (Lineas Aereas de Panama). This airline was used as a cover for the acquisition of ten ex-USAAF C-46 Commandos, and three L-049 Constellations, by Israeli agents in the USA during late 1947/early 1948. Eventually, nine of the C-46's and one L-049 found their way to Israel where, from 14 May 1947, they formed the Air Transport Command (ATC) of the Sherut Avir.

Prior to this, a C-54 chartered from American Overseas Airlines in March 1948 had comprised the air arms sole long range transport capability.

Air Transport Command had meanwhile established its main base at Zatec, Czechoslovakia, and immediately commenced an airlift of urgent military equipment to Ekron in Israel. The airlift, known as Operation Balek, included the transportation of disassembled Avia S-199's - which were used to form 101 squadron.

Two war surplus C-54D's were purchased on 15 May 1948 to join ATC. These aircraft were referred to as DC-4's, and operated in civilian markings to facilitate overseas trips. The big transports also acted as lead-ships during delivery flights of Spitfires direct from Zatec. In addition, the C-46's acted as bombers on at least one occasion (over El Arish).

After nearly one hundred return flights between Zatec and Ekron, Operation Balek was closed down in August 1948 due to political pressure from America. All personnel were withdrawn from Zatec to Ekron, and ATC was renamed 106 squadron.

The single L-049 was later joined by the two others from the USA. These aircraft operated in a joint military/civil role, transporting cargo from Ekron and passengers to and from Lydda. In April 1949 they were formally transferred to the newly formed airline EL AL.

The activities of 106 sqn during the Suez Campaign remain a blank at the moment.

From 1962, 106 sqn began to receive extensively rebuild versions of the Boeing 377 Stratocruiser. These had been modified by IAI to KC-97 standard for the heavy freight transport role, and were intensively used during the 1967 Six Day War. In 1968 at least two examples were fitted with Flight Refuelling hose reel pods under the outer wings, and several ex-USAF KC-97G's were acquired to bolster the fleet. Three aircraft were converted to ECM use and will be described separately.

During the Yom Kippur War of 1973, the first Boeing 707's were received by 106 squadron. These airliners had been modified by IAI for passenger/cargo transport, tanker and special mission roles, based on their experience with the Boeing 377. Since entering service, the IDF/AF has standardised on the JT3D-3 turbofan for all 707 models.

One Boeing 707 served as a fully equipped surgical hospital, standing by at Nairobi during the Entebbe raid of 4 July 1976. The 377's and KC-97's were retired in the early 1980's, fully replaced in all roles by the Boeing 707. The Boeing 707's were recently used in the transport of Ethiopian Jews to Israel in 1991.

During the Yom Kippur War, two IAI 1123 Westwinds were introduced into service for regional VIP transport. In 1977 one aircraft was passed to the Navy, (see below).

The aircraft used by 106 sqn include:-

Type	Qty	Service	Base	Badge	Example Serials
C-46	8-9	late May 48 - 1952	Zatec & Ekron		140, 4X-ACG
C-54D	2	15 May 48 - ?	Zatec & Ekron		
L-049 Constellation	3	late May 48 - April 49	Lydda & Ekron		RX121
Boeing 377	12	1962 - 1982	Lod	21	4X-FPS, FPT, FPH/039, IAF-38
Boeing KC-97G	3	1968 - 1982	Lod	21	4X-FPX/098, FPV, FPV/10
Boeing 707-124/131	5	Oct 1973 - Present		21	4X-JYA, B, D, H
Boeing 707-320/329	7	Oct 1973 - Present		21	4X-JYC/005, JYK, N, V, W, M, Z, 115
IAI 1123 Westwind 1	2	Oct 1973 - Present		21	4X-JYG/064, JYF/003

106 sqn is also responsible for:

Naval Flight

Role: Maritime Patrol

A fixed wing Flight was established by the IDF Navy in 1977 to provide naval co-operation missions. The initial equipment comprised one ex-Air Force IAI 1123 Westwind 1, together with two additional new examples. During 1978-1981 the three aircraft were converted to IAI 1124N SeaScan standard with a prominent radar nose, bubble windows, stores pylons and an extensive sensor fit. The aircraft are crewed and maintained by the Air Force but operated under Navy control.

The aircraft used include:-

Type	Qty	Service	Base	Badge	Example Serials
IAI 1123 Westwind 1	3	mid 1977 - 1978		21	
IAI 1124N SeaScan	3	Aug 1978 - Present	Lod	21	4X-JYC/029, 4X-JYR/929, JYR/035

107 Squadron (Nickname not known)

Role: Fighter, later Fighter-Bomber

Following the formation of 105 squadron, a second fighter OTU was formed in early 1953 as 107 squadron. This unit was equipped with Spitfires relinquished from 101 sqn. In March 1954 however, the unit was disbanded and its aircraft passed on to 105 squadron.

107 squadron did no reform until some time in 1957, and therefore took no part in the Suez Campaign of 1956. It's new mount in 1957 was the Mystere IVA, acquired to counter the increasingly capable MiG's operated by Egypt and Syria. After the Mirage III had been successfully introduced into service in 1962, the Mystere IVA was relegated to the ground attack role.

Early on the first day of the Six Day War, 5 June 1967, Mysteres and Ouragans attacked and put out of action the Egyptian airbases at El Arish, Jebel Libni, Bir Gifgafa and Bir Themada in the Sinai. That afternoon Syrian airfields at Damascus, Marj Riya, Dumeir, Seikal and T4 were also attacked by Mysteres. By the end of the first day four Mysteres had been lost to ground fire by the three squadrons then operating the type. A further four aircraft were lost in close air support and inter-

diction sorties, in support of the advancing ground forces, by the end of the war.

The Mystere IVA was gradually phased out of IDF/AF service from 1968, in favour of the A-4 and F-4. 107 squadron was the last unit to complete the process, re-equipping with the F-4E from February 1971. For F-4E operations in the Yom Kippur War, see the entry for 69 squadron. 107 sqn continues to operate the F-4E and RF-4E Phantom.

Note: The tail badge(s) for this unit are at present not positively identified, and thus cannot be illustrated.

The aircraft used by 107 sqn include:-

Type	Qty	Service	Base	Badge	Example Serials
Spitfire LF.IXE	15+	early 1953 - Mar 1954	?	22	24
Mystere IVA	20	1957 - Feb 1971	Hatzerim	?	
F-4E	22	Feb 1971 - Present	Hatzerim	?	
RF-4E	2	Feb 1971 - Present	Hatzerim	?	

109 Squadron ("Valley Squadron")

Role: Attack

109 sqn was the IDF/AF's first dedicated attack squadron, being formed in the summer of 1951. It's initial equipment comprised various marks of Mosquito, including some PR.16 variants which were converted to FB.6 standard.

Unfortunately, a number of structural problems were discovered with the wooden airframe and the adhesive joints of the Mosquito, and the type began to be phased out from 1955. 109 squadron was disbanded in 1955 and took no part in the Suez campaign of 1956.

In 1957, the unit was reformed to fly the Dassault Ouragan, becoming the second unit to operate this type. In April 1962, conversion to its more capable sister, the Mystere IVA commenced. These latter aircraft were probably ex-101 sqn examples.

Mystere operations in the Six Day war are described under 107 squadron.

109 squadron became the first IDF/AF unit to operate the A-4 Skyhawk, when it received the first examples of the A-4H model at the start of 1968. It mounted its first raid with the new type later in 1968, on an El Fatah terrorist base on the east bank of the Jordan.

As with the F-4 Phantom squadrons, it is impossible at present to identify individual 109 sqn Skyhawk operations during the Yom Kippur War of October 1973. However, the six squadrons operating the Skyhawk flew more attack sorties than all the other types combined, losing some 53 aircraft in frantic ground attack and close support missions to stem the Egyptian and Syrian advances. Virtually all of the losses were attributable to ground fire.

Since the early seventies, the Skyhawks have received continual airframe and avionics upgrades. These include an extended jet pipe, dorsal avionics hump, ECM/RWR equipment, rewired weapons pylons and improved attack avionics. A-4's flew many attack missions in support of the invasion of Lebanon in June/July 1982, during which at least two Skyhawks were lost.

In 1991 the unit began to convert to the F-16C, finally catching up with its fellow attack squadron at Ramat David (110 sqn), which had operated the type since 1988.

The aircraft used by 109 squadron include:-

Type	Qty	Service	Base	Badge	Example Serials
Mosquito FB.6	257	June 1951 - 1955	Ramat David	23*	
Mosquito PR.16	5	"	"		
Mosquito T.3	1	"	"		
Mosquito TR.33	57	"	"		
Ouagan	22	Aug 1956 - April 1962	Ramat David	24	49
Mystere IVA	20	April 1962 - late 1967	Ramat David	24	60
A-4H/TA-4H	24	1 Jan 68 - 1991	Ramat David	25†	28, 52
F-16C	24	late 1991 - Present	?	25	355

*(with blue rudder)

†(blue background)

110 Squadron (Nickname not Known)

Role: Attack

Like its sister attack unit at Ramat David, 110 sqn was formed with Mosquitoes in 1951.

By the time of the Suez campaign in October 1956, the Mosquito was being phased out from IDF/AF service, with 110 sqn being the last operator. Nevertheless, the unit was involved in providing close air support for ground forces; including the capture of Rafah in the Gaza strip, and attacks on an Egyptian armoured column heading for El Arish in northern Sinai - successfully stopping it.

The unit moved into the jet age with the arrival of the Vautour IIA (single seat attack) and Vautour IIB (two seat bomber) in mid 1957. Vautour strength was supplemented by Vautour IIN's (two seat night fighter) from 119 sqn in 1963. The IIN's had their radar replaced by ballast for the attack role.

The Vautours were first used operationally on 13 November 1964, in a large scale air strike on a Syrian position which had been firing on an Israeli kibbutz. On the first day of the Six Day War, early on 5 June 1967, flights of IIA's, with IIN's acting as navigation leaders, hit the Egyptian airbases at Abu Sueir and Beni Sueif. One aircraft was lost over Syria in further raids that day, but an Iraqi AF Hunter was shot down by a Vautour during a raid on H-3 airfield the next day. In all, four aircraft were shot down during the war. As the war progressed missions switched to close air support on the Syrian front.

During the War of Attrition, 1969 - 1970, the squadron quickly re-equipped with the A-4H Skyhawk, becoming the fourth unit to receive the type.

For Yom Kippur operations see 109 sqn.

The unit re-equipped in 1977 with the Kfir C-1, using aircraft relinquished by 101 squadron, and became the third unit to operate the type, being declared operational on 28 July. The aircraft were soon fitted with small canards to improve manoeuvrability. In about 1981, the upgraded Kfir C-2 was received, together with some TC-2 two seaters.

During the invasion of Lebanon, June 1982, and subsequently, the Kfirs were often used alongside Phantoms in attacking PLO and Syrian positions. Most notably in the suppression of Syrian SAM defences in the Bekaa valley on 9 June, and in the siege of Beirut 13 June-12 July 1982. A number of C-2's were upgraded to C-7 standard from 1983.

From around 1988 the unit has operated the F-16C and F-16D.

The aircraft used by 110 sqn include:-

Type	Qty	Service	Base	Badge	Example Serials
Mosquito FB.6	257	mid 1951 - early 57	Ramat David		
Mosquito T.3	17	"	"		
Mosquito TR.33	57	1954 - early 1957	"		
Vautour IIA-12	12	mid 1957 - late 1969	Ramat David /Hatzorim	26, 27	03, 08, 18, 26, 109, 116, 123
Vautour IIB	4	July 58 - late 1969	"	27	05,
Vautour IIN	6	Mar 1963 - late 1969	"	27	162
A-4E/A-4H	30	late 1969 - July 1977	Ramat David	28	
TA-4H	2	late 1969 - July 1977	"	28	
Kfir C-1	24	July 1977 - 1981	Ramat David		
Kfir C-2/C-7/TC-2	24/2	1981 - 1988	"		
F-16C/F-16D	17/8	1988 - Present			

UNIDENTIFIED UNITS

'D' Sqn

Role: Anti-tank/Reconnaissance/Weapons Training

A squadron of Hughes 500MD/TOW Defender armed scout helicopters was obtained in 1979. The type is used in the anti-tank, armed reconnaissance and helicopter weapons training roles - and also for coastal/border anti-terrorist patrols. Defenders saw action in the June 1982 invasion of Lebanon, with many tank kills to their credit, but one aircraft was lost to a lucky shot from a Syrian tank late in that month. The IDF/AF examples are fitted with Black Hole Ocarina side mounted exhaust outlets to reduce IR signature.

The aircraft used include:-

Type	Qty	Service	Base	Badge	Example Serials
Hughes 500MD/TOW	30	mid 79 - Present	?	29	206, 207, 208, 212, 214, 219, 220, 223
Hughes 500MD/TOW	6	1984 - Present	?	29	254

'E' Sqn

Role: Fire Control/Maritime Patrol/ASR

The IDF's Aerospatiale HH-65A Dolphins are owned by the Navy (Chel Ha'yam), but maintained and operated by the Air Force. They are in fact Americanised versions of the AS366G Dauphin 2, identical to those used by the US Coast Guard. The helicopters are flown from Aliyah-class Fast Missile Boats for anti-shipping, maritime patrol and air-sea rescue missions.

The aircraft used include:-

Type	Qty	Service	Base	Badge	Example Serials
HH-65A Dolphin	67	1988 - Present	IDF Missile Boats & Palmachim AB	30	4X-FJA/901, 905

'F' Sqn

Role: Light Transport/Communications/Pilot Training

The communications/multi-engined training squadron was formed after the armistice, in March 1949, with Avro Ansons and Airtspeed Consuls as its initial equipment. The Ansons were ex-RAF aircraft, and the Consuls were purchased from the UN commission in Palestine. Both types served as multi-engine pilot, radio and navigation trainers, and also as light utility transports.

The Anson and Consul were both withdrawn from service by 1959, to be replaced by an unknown type, possibly the C-47. From 1974, the squadron operated Beech Queen Airls in a similar variety of roles. Most aircraft being used for general liaison/communications duties, but several were used full time for multi-engine pilot and navigator training with the Flight

School. At least two more were used for VIP transport with special interior furnishings.

In 1990, the IDF/AF announced that the Beech Bonanza had been selected to replace the Queen Air, in both the liaison and navigation training roles. Presumably, another type - such as the Arava - will now take over the multi-engined training role.

The aircraft used include:

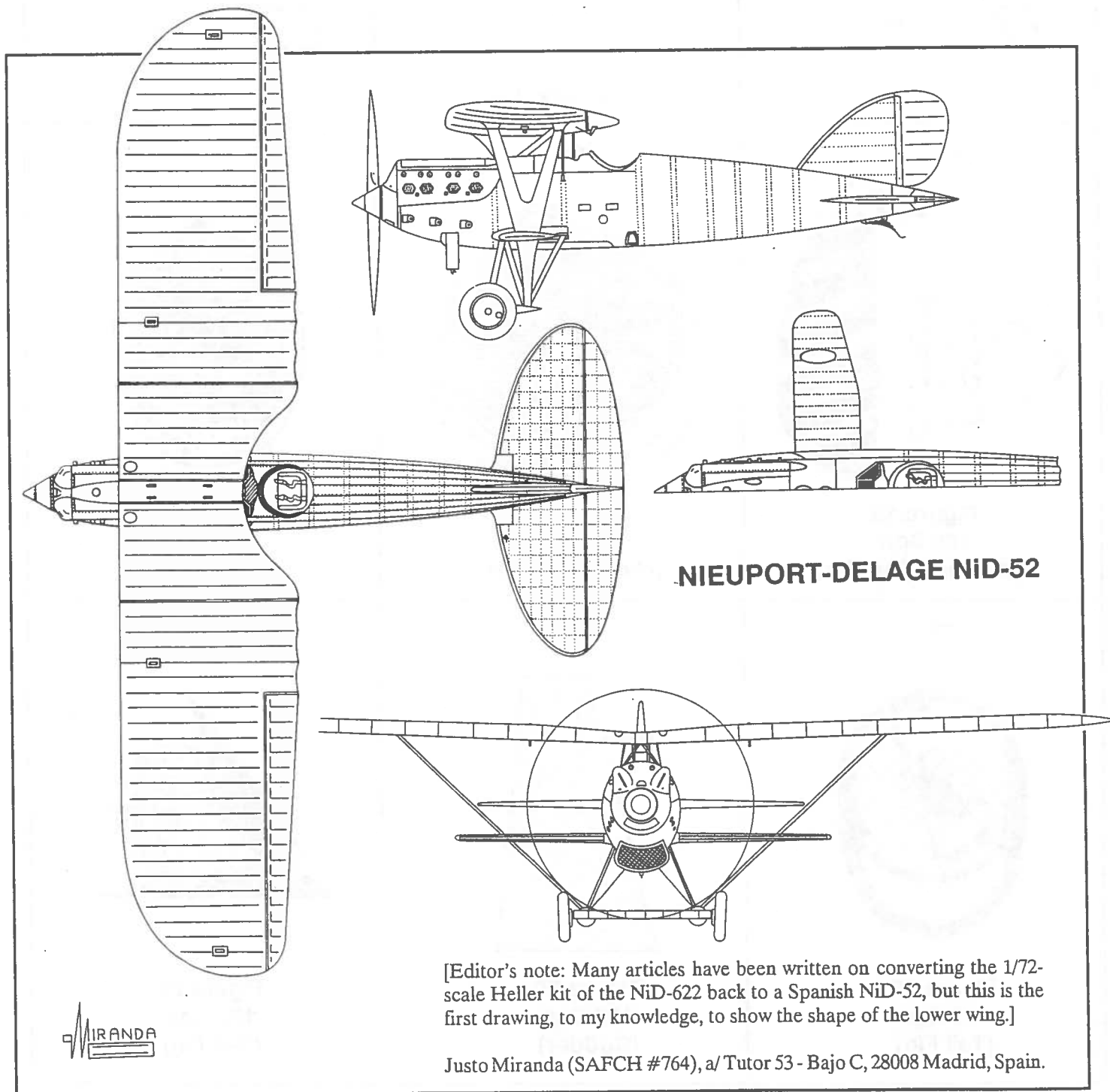
Type	Qty	Service	Base	Badge	Example Serials
Anson I	4	March 49 - 1959 April 50 - 1959	Hatzerim?		02 06, 07
AS65 Consul	187	March 49 - 1959	Hatzerim?		08,
C-477					
Beech 65-B80 Queen Air	16	1974 - Present	Dov-Hose & Hatzerim		101, 102, 104, 110 , 112
Beech Bonanza 36A	207	late 1990 - Present			

Part III of this series will cover squadrons 113 to 118, plus some more units thus far unidentified.

Additional References

15. The Israeli Air Force Story (Rubinstein and Goldman)
16. Flight International 15 - 21 Jan 1992
17. Air Enthusiast 37
18. Air Enthusiast 42
19. Air Enthusiast 44
20. Air International Feb 1992
21. Air Forces Monthly July 1990
22. Air forces Monthly July 1991
23. Air Forces Monthly Feb 1992
24. Air Forces Monthly July 1992

John Hayles (SAFCH#463), 14 Meadow Garth, Beverley High Road, Hull, N. Humberside, HU6 7YJ, England.





White



Black



Red



Orange-Red



Yellow

SQUADRONS OF THE ISRAELI AIR FORCE 1948 - 1992

PART II: SQNS 105 to 110

John Hayles

(NOT TO SCALE)



Pale Blue



Medium Blue



Dark Blue



Light Grey



Pink

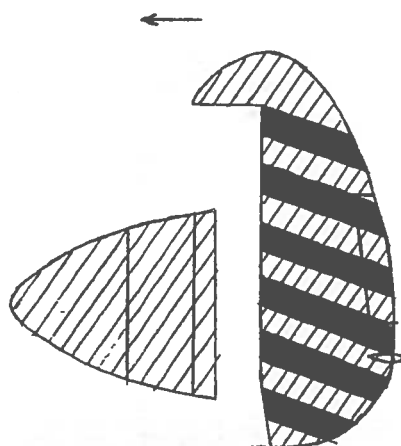


Figure 16
105 Sqn
(Spinner & Rudder)

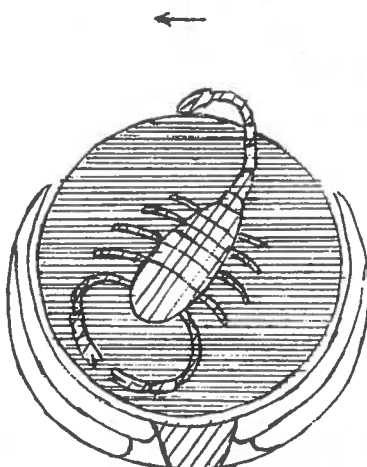


Figure 17
105 Sqn
(Fwd Fuselage)



Figure 18
105 Sqn
(Tail Fin)



Figure 19
105 Sqn
(Tail Fin)

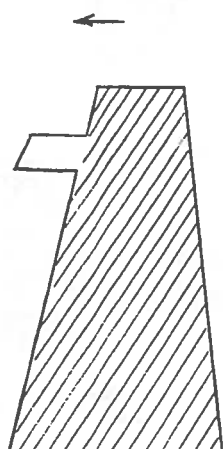


Figure 20
105 Sqn
(Rudder)

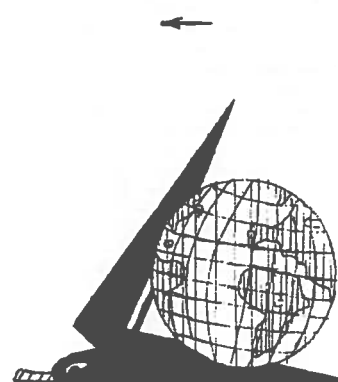


Figure 21
106 Sqn
(Tail Fin)

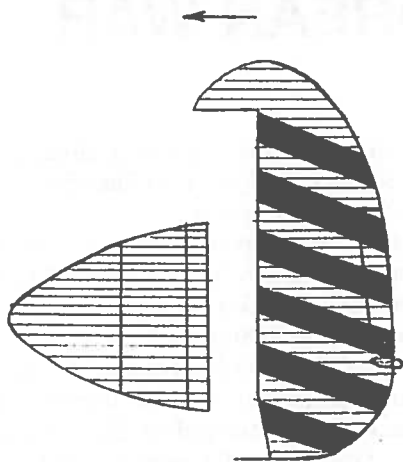


Figure 22
107 Sqn
(Spinner & Rudder)

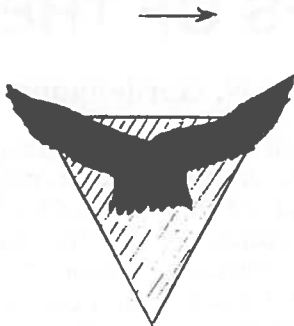


Figure 23
109 Sqn
(Tail Fin)



Figure 24
109 Sqn
(Tail Fin)

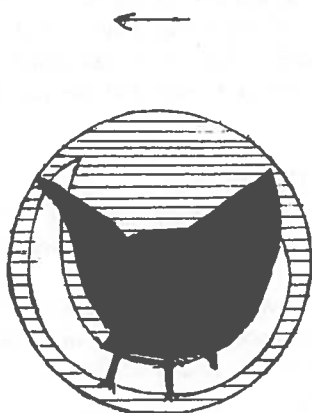


Figure 25
109 Sqn
(Tail Fin)

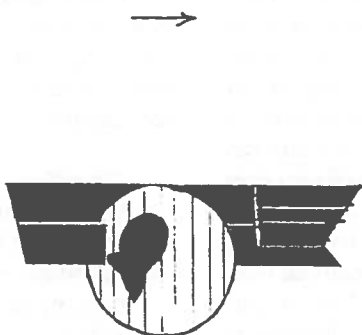


Figure 26
110 Sqn
(Tail Fin)

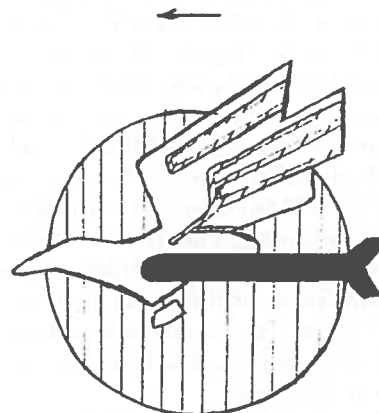


Figure 27
110 Sqn
(Tail Fin)

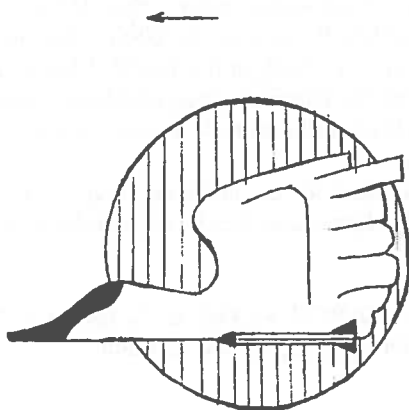


Figure 28
110 Sqn
(Tail Fin)



Figure 29
'D' Sqn
(Rotor Head & Fin)



Figure 30
'E' Sqn
(Tail Fin)

SOVIET AIR ACES OF THE KOREAN WAR

Igor N. Gordelianow

Recently, a distinguished Soviet airmen has told of his participation in the Korean War from 1951-53. This war started as a conflict between North and South Korean, but in a short time both the USSR and the USA were drawn into the battle.

Alexandr Pavlovich Smortzkow was born in 1919. During the Korean War he served as the commander of the 18th Aircraft Regiment. He was decorated with the "Gold Star" order for his service in the Korean War. He is also a "Hero of the Soviet Union" and at the present time he is a retired Colonel. He gave the following interview to a reporter of the Russian newspaper, Komsomolskaya Pravda:

"In June 1950, I was flying MiG-15 out of Moscow when the commander of the Moscow Air Defense (PVO), General-Colonel K. Moscalenko, informed me of the arrival of top secret orders concerning the conflict in Korea. The signal to initiate the orders, "Polikarpov Po-2 in Flight" had been received and we were to board a secret train at night to travel to the Far East. When we arrived in the Far East, we found the weather to be very bad; heavy tropical downpours such as I have never experienced in my lifetime. Many ducks were swimming on our airfield. First we operated from Mukdan airbase, but after a few days our 18-aircraft regiment was transferred to Andun airbase.

"Our first flights were in formation with MiG-15s from other regiments: 24 MiG-15 in three groups of eight aircraft. We were dressed in Chinese uniforms and our aircraft carried Chinese insignia. Initially, we were ordered to speak only Korean over the radio. Since most Russian pilots did not know Korean and we had to use Korean dictionaries for even the simplest words necessary for fighting and flying, as you can imagine, this order was soon abolished.

"Our attitudes towards the American pilots were complicated. During the Second World War, we had been allies against Hitler. Therefore, in Korea, we did not view the Americans as enemies, but only as opponents. Our motto in the air was 'Competition - with whomever.'

"Americans attacking North Korea in our area had two main targets: The bridges across the Yalunczyan River and the Andun power station which was supplying electrical power to North Korea. Our pilots protected these two objectives with great success. Our first aerial victory was scored by Akatow who shot down an F-86 Sabre. This fine pilot later died of wounds suffered in combat; he had only one aerial victory. Also killed was my friend Valentin Filimonow who was shot down when two F-86 Sabres attacked his MiG-15.

"My opinions about the relative abilities of Soviet and American aircraft and pilots were as follows: I thought the American pilots were very good. This opinion was shared by other Soviet pilots including my friends Vladimir Voistinnych and Pete Chourkin. However, the MiG-15 was a very good aircraft. It had only one big problem - the engine would stop

abruptly during a sharp turn. As for the American aircraft: the F-80 Shooting Star was not very good, the F-84 Thunderjet was average, but the F-86 Sabre was very good.

"One day we attacked a group of Australian Gloster Meteors. They were a big, easy targets for us. My friend Oskin and I destroyed five Meteors during this one fight.

"One night we intercepted B-29 Superfortresses. I was listening to my radio - 'Group of B-29s in front of you!' I dove my MiG-29 with my heart pounding. Soon I saw the B-29s with many protecting fighters. I attacked and destroyed two B-29s and one of the escorting Sabres. Over my radio came the question: 'Alexandr! How are you getting on?' I answered with a furious 'Victory! It's O.K.!' That night our regiment destroyed five B-29s." Alexandr Smortzkow finished the Korean War with 12 victories (5 B-29, 2 F-86, and 5 Meteors).

Ivan Kozedub, the great Soviet ace of the Second World War (62 victories) and "Hero of the Soviet Union" with three "Gold Stars", was the commander of all the Soviet fighter regiments in Korea. He did not fly in Korea, but his regiments accounted for 258 victories.

Other Soviet Aces of the Korean War:

Nikolay Shkodin: 5 victories (4 F-86 and one F-84G). During the war he flew 150 combat missions. He is presently a General-Major retired.

Yevgeny Pepelyaev: with 23 victories, he was the top Soviet ace in the Korean War. He was known as the "Big night boy".

Anatoly Karelin: 9 victories (all B-29s destroyed at night during "Free Hunter" missions).

Other Soviet aces were: Nikolay Ivanov (6 F-86), Mikhail Mihin (9 F-86), Nick Sutyagin (23 victories), L. Schukin (more than 10 victories), and D. Oskin (more than 10 victories).

Other Soviets with more than 10 victories were: G. Pulov, G. Ohay, S. Veshnyakov, G. Ges, A. Boytzow, and D. Samaoylov.

Alexandr Smortzkow's interview concluded: "Before my last flight of the War, my division commander ordered that we were to attack Sabres and then fly back to the USSR. On this flight, I was wounded in the leg. Back in the USSR, I learned that an American pilot with the Russian name, Makhonin, had been captured along with his brand new F-86. It was interesting to study his aircraft up close.

"Thus, the war was finished for us. However, many of my good friends had perished in Korea and they were buried at Port Artur."

Igor M. Gordelianow (SAFCH #1066), ul. Strijskaja 179 kw.68, Lvovskaja obl., g. Drogobych, 293720 Ukraina.

MIG MODELING

John MacGregor

I've recently been on a MiG-modeling spree and I thought that SAFO readers might be interested in the things I found necessary to produce accurate 1/72-scale MiGs. First, I should mention the obvious - you can only produce a model to match the plans you're using, and, as we all know, plans don't always agree. So, I'll give a source for the plans I used to build the various versions.

MiG-15 and MiG-15UTI. The MiG-15 is kitted in 1/72 by Airfix and KP. Neither kit is accurate. The -15UTI is kitted by KP - and it ain't accurate either. However, it is not hard to produce an accurate model of either aircraft. The Airfix kit, despite being ancient (it dates back at least 30 years), is surprisingly accurate in outline. While the KP kits have horribly inaccurate fuselages, their wings aren't bad. So, the answer is obvious.

For a MiG-15, use the fuselage and nose ring from the Airfix kit, and take everything else from the KP kit except for the canopy which should come from Aeroclub. You'll need to glue the Airfix airbrakes into the fuselage, then fill, sand, and rescribe them, as they're inaccurate for either a MiG-15 or a MiG-15bis. At the same time, sand off the raised panel lines and rescribe. The KP wings fit well to the Airfix fuselage, but a little filling is necessary. I preferred the Airfix tailplanes and gun blisters, both slightly re-shaped. (The KP blisters are hopeless.) The Airfix fuselage also need the cockpit opening to be slightly altered and the rear fuselage interior scraped away slightly to accept the KP kit jet pipe.

For the MiG-15UTI, repeat as above, but enlarge the cockpit opening. It isn't necessary to build up the fuselage cockpit fairing as the Aeroclub canopy has this.

The ejector seat on both models could be replaced with Aeroclub ones, and some detailing inside is necessary to prevent the 'see-through' look.

For these models, I used the 1/72-scale plans from the 'Aviation News Aircraft Plans' series. See also the Squadron/Signal MiG-15 book.

MiG-17. This MiG was kitted by KP and Hasegawa, both as the 'PF' variant. Neither are accurate. Whichever kit you use, you'll need to do the following: Discard the fuselage and replace with the Aeroclub vacuumform fuselage (available in Fresco A, C, D variants plus the Chinese JJ-5 two-seat trainer version). Alter the wings: neither kit is accurate, but they're inaccurate in different ways. See the British IPMS Magazine 3/92 for details how to do this (the same article was in the IPMS New South Wales, Australia, magazine APMA for 4/90). Even if you can't get either of these references, it's not that hard to work out what to do when you compare the kit parts with an accurate plan. Basically, the Hasegawa wings are too big everywhere, while the KP ones are short in chord and a tad too long.

Again, interior nose detail will be needed, and the ejector seat could be replaced.

I used 1/72-scale plans from same source as the MiG-15. Other references include the Squadron-Signal book and a book in the Czech Triada series (MiG-17/Hurricane/Spad).

MiG-19. As far as know, the only kit is from KP, but apparently this is now out of production. I used the 1/72-scale plans in the Triada book (S-328/Beaufighter/MiG-19) and it seems the only serious fault is that the tailplanes are too long in span. You may want to replace the ejector seat and if you don't like the rather thick canopy, Aeroclub offers a replacement. If you want to build a Chinese JJ-6 2-seat trainer version, you're going to have to convert it yourself.

MiG-21. The currently-available Fujimi series is apparently extremely accurate although I haven't seen one personally. I object to the ludicrous prices of this series (currently about \$20 in the UK) so I thought I'd dig out the other 1/72-scale kits available to see how they compare. I used the plans in the May, November, and December issues of Scale Models International, but the Aviation News Plans series also has a MiG-21 in its range.

The MiG-21F is available from Airfix and Hasegawa. I haven't seen the Hasegawa kit, but apparently it's not very accurate. The Airfix kit is a bit better, but it's basically over scale and the outline isn't right. It will be difficult to correct.

MiG-21PF/PFM. The original Matchbox kit was of this version, but it is no longer available as the molds were re-tooled for the 'MF' version. Basically, the fuselage is too long, the tail fin is too narrow in chord and the wrong shape, and the ventral tail fin is hopeless. The extra length seems to be between the wing's trailing edge and the tailplane. Not really worth bothering about as it's pretty crude otherwise. Oh yes, the wings are too long in span and chord.

MiG-21MF. KP does an 'MF'. When first it came out, it was well received and, in fact, it's not bad. It does have some faults, though. The worst fault is that it's about 5 mm too short in the fuselage, and it's hard to tell where it's short. The cockpit is too far back, the nose tapers too much, and the fin is about 2 mm too narrow in chord. Also, the main wheel well are about 4 mm too far back on the fuselage. The wings are good, but the tailplanes are too narrow in chord at the root.

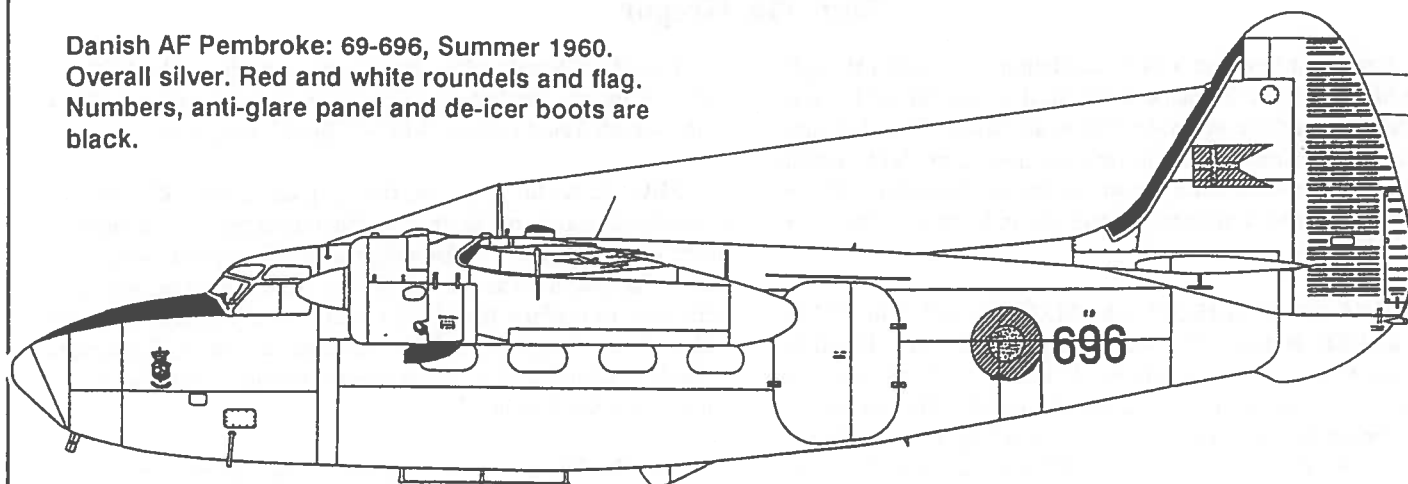
So, the MiG-21 verdict? Well, I don't think you can make an accurate '21 from any of the above kits - at least not without a lot of work. You can either live with their inaccuracies or save up (sell the car or rob a bank) and buy the Fujimi kits (which you will have to do anyway if you want a '21UTI). It's a pity about the excessive price - I was looking forward to buying 3 or 4, but at \$20 a pop - no thanks. Maybe, I'll move up to 1/48 and buy the OEZ kit; it's both accurate and nicely priced.

If you do feel like buying a Fujimi '21, have a look at the latest in the series - the MF 'African MiG'. This kit comes with markings for 6 different African countries.

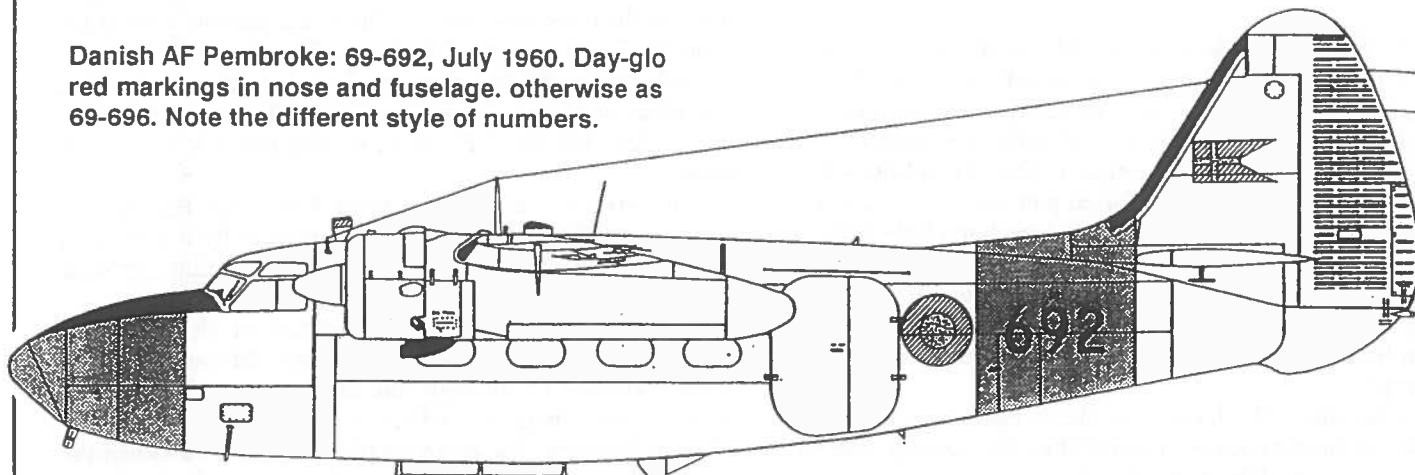
John Macgregor (SAFCH #766), 13 Foggyley Gardens, Dundee DD2 3LG Scotland.

SMALL AIR FORCE PEMBROOKS

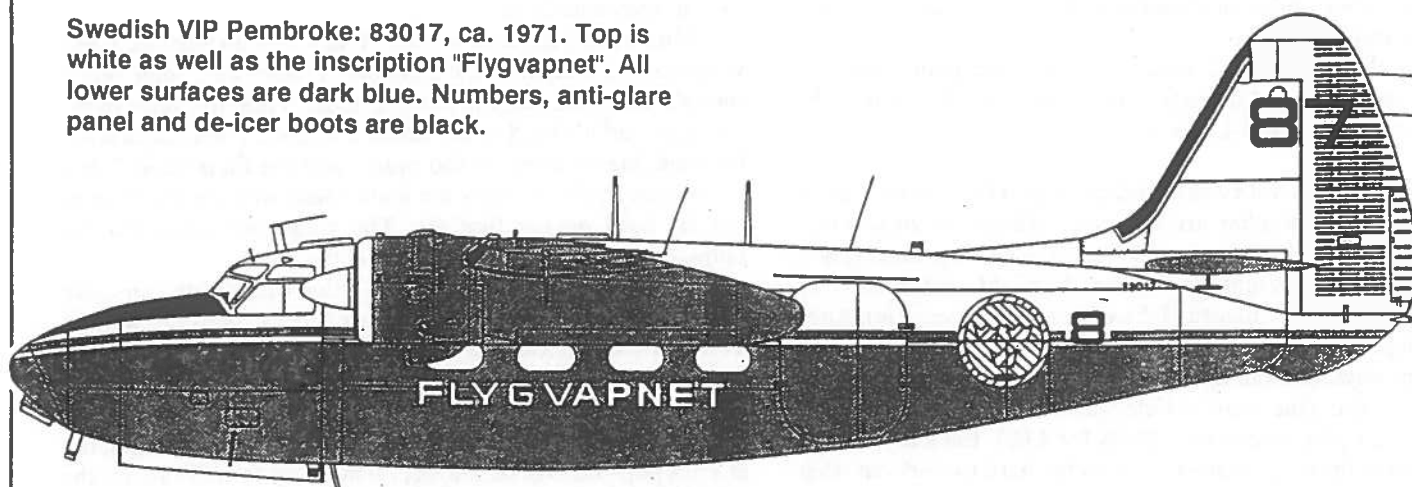
Danish AF Pembroke: 69-696, Summer 1960.
Overall silver. Red and white roundels and flag.
Numbers, anti-glare panel and de-icer boots are black.



Danish AF Pembroke: 69-692, July 1960. Day-glo red markings in nose and fuselage. otherwise as 69-696. Note the different style of numbers.



Swedish VIP Pembroke: 83017, ca. 1971. Top is white as well as the inscription "Flygvapnet". All lower surfaces are dark blue. Numbers, anti-glare panel and de-icer boots are black.



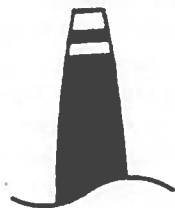
These drawings first appeared in the Danish magazine TINBOX. They have also appeared in NYT, the magazine of IPMS DENMARK. They are reproduced here with the kind permission of the editors of both magazines.



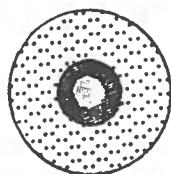
Pilot's Wings

ECUADORIAN ARMY CESSNA T-41

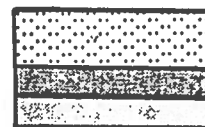
White Tips



The Ecuadorian Army operates a number of T-41 Mescalero in the training role at the flying school at Guayaquil. They have a wrap-around camouflage with a unique pattern and color.

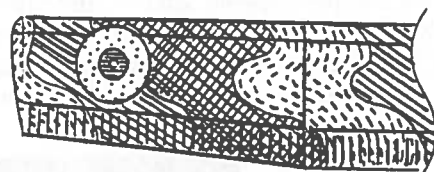
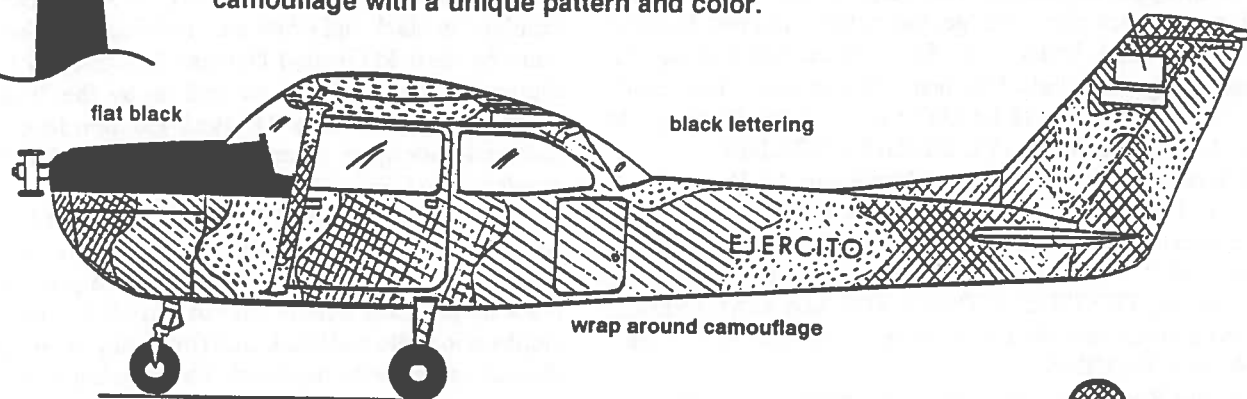


Yellow
Blue
Red



AEE160

AVIACION DEL EJERCITO ECUADORIANO



Dark Green

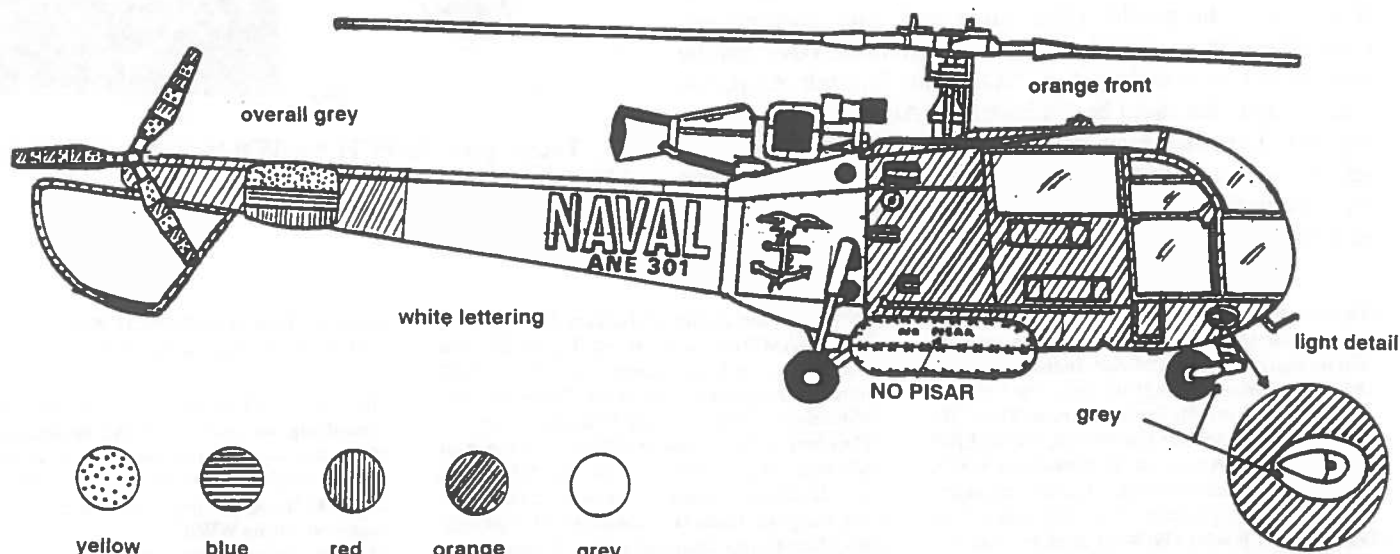


Blue Green



Lemon Green

ECUADORIAN NAVY ALOUETTE III



Jorge Delgado (SAFCH #862), Box 2207 Urdesa, Guayaquil, Ecuador.

ANE 301 c/n 2067. The last of three Alouettes in Naval service. They have now been replaced by Bell 206 Rangers.

ORGANIZATIONAL EMBLEMS

SOUTH-EAST ASIAN VARIETY

Ted Koppel

Following our initial forays into this region with Singapore (SAFO #55) and Cambodia (SAFO #59), we now return for a brief look at a few more countries. (These cloth insignia for uniform/flight suits are shown at about 46% of actual size.)

TOP ROW: Sultanate of Brunei, Royal Brunei Malay Regiment, Helicopter Squadron. This large patch, with borders, scrolls, etc., in dark blue, orange, tan, yellow, and red, features a white and black helicopter with a green band along the fuselage, flying over a light-blue map of the country. The scrolls read, **SKUADRAN HELIKOPTER / CHAWANGAN UDARA / ASKAR MELAYU DI-RATA BRUNEI**.

Federation of Malaysia, Royal Malaysian Air Force, No. 5 Squadron. The red and golden-yellow disc displays the circular unit emblem in the middle, yellow on blue, with hawk, tiger-head and numeral "5" on either side of the center. Surrounding this are the words, **TENTERA UDARA DIRAJA MALAYSIA / SEKUADERAN**, and the scroll along the bottom reads, **EER-SEDIA DAN PAVTAS**.

Socialist Republic of the Union of Burma (or possibly pre-Socialist Republic), Union of Burma Air Force, two rare unit emblems, both on light blue discs with red border. The winged elephant undoubtedly represents a heavy transport squadron (as it has in some other air forces, from the Khmer Republic to Israel), while the winged globe, with crossed compass and lightning bolt, all superimposed on a flaming torch, seems to belong to an Air Force (technical?) school or academy.

SECOND ROW: Republic of Indonesia, Indonesian Armed Forces - Air Force, three miscellaneous designs. the first, in yellow and orange on blue, bears no resemblance to the official Air Force badge. The second one depicts three red aircraft with silver contrails passing a golden sunburst, on a shield halved into two shades of blue. **KODAU / IV** appears in red, as does **ADISUTJIPTO** on the blue arc above, bordered in silver, as is the shield. (The silver and gold portions are embroidered in metallic threads.) If the letters **KODAU** may be interpreted as standing for "KOMando Daerah Angkatan Udara", then this could be the badge for Air Force Area Command (IV), or 4th Area Command. The third patch, in orange, yellow, white, and black, reportedly is for the Air Force Parachuting Club and reads, **FASI / PARA SPORT 1(?) SKYDIVING**.

Not part of the main photo, but shown elsewhere to the same scale are two more patches for Indonesia: (a) Air Force Headquarters emblem, based on the AF Staff badge worn by officers and technical staff. (In Indonesian, this HQ would be **MBAU** = "Markas Besar Angkatan Udara".) The colors are golden-yellow on a blue shield. (b) AF Air defense Command emblem, in black and white on a red shield. In the 1960s, it was worn by Airfield Ground Defense Troops (PPP), Airfield Air Defense Troops (PSU), as well as by the "Pasukan Gerak Tjepat" (PGT), an elite AF quick-reaction force. (This latter unit had undergone several name changes while retaining the emblem as AF Special Forces.)

BOTTOM HALF OF PAGE: Kingdom of Laos, beginning with the official emblem of the Royal Lao Air Force. This consists of eagle-wings (and lettering) in golden-yellow with black outlines and details, the royal symbol of the tricephalous elephant in white and black, and (ironically) a red star on a white disc, all on a blue background. The remaining five unit shields, in a great variety of vivid colors (including purple and salmon-pink), could perhaps be for regular RLAFF units or even the Thai "volunteer" units that participated semi = clandestinely against the supposedly non-existent North Vietnamese forces in Laos prior to 1975! Whether authentic RLAFF squadrons or not, it would still be interesting to get translations of the wording on these flamboyant examples of aviation heraldry.



(a)



(b)

Ted Koppel (SAFCH #), 3520 N. Rolling Rd., Baltimore, MD 21244-2202.

(Continued from page 12)

just impressed for a short period and never carried military markings. The Bolivian Junkers W-34/K-43s are a bit more difficult to trace, but I believe the following is not far from the truth: Three W-34ci models were acquired in 1929-30, two for LAB and one for the FAB (serial 76, 'Presidente Siles'). These three were converted into rudimentary bombers and probably became 101, 102, and 103 in 1932-33. Two K-43hi (W-34hi) models were obtained in 1934 and these were serials 104 and 105. The Ju-52/3m were camouflaged but seem to have retained their civil markings. On the back cover of

SAFO #64, the photos of Junkers F-13s CHAR-CAS, MAMORE, etc., W-34 TUNARI, and, presumably, the Ford trimotor are of civil LAB aircraft photographed before the Chaco War and definitely not Bolivian Army Aviation aircraft. "The photo in 'Mitteilungen 4/92', mentioned in the 'Abstracts' on page 106, is of a Soviet MR-1. This was a floatplane version of the R-1 which was, in turn, a copy of the de Havilland DH-9A. The German Munzel firm designed a pair of metal floats which were tested on the MR-1, but this variant was not adopted for series production."

Lennart Andersson (SAFCH #68), Tiundagatan 52B, S-752 30 Uppsala, Sweden.

"In SAFO #63 on page 75, you asked for help identifying the aircraft in the background of a photo that appeared in the Hungarian magazine *Aero Historia*. This is a Hungarian Ju-86 and not a Si-204 as thought it might be. The Si-204 was not exported during WWII."

Matthias Rothe (SAFCH #865), Ringbahnstr. 72, 1000 Berlin 42, Germany.



